Professor Goldwin Smith

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The Money Problem

By
Arthur Kitson

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Grant Richards
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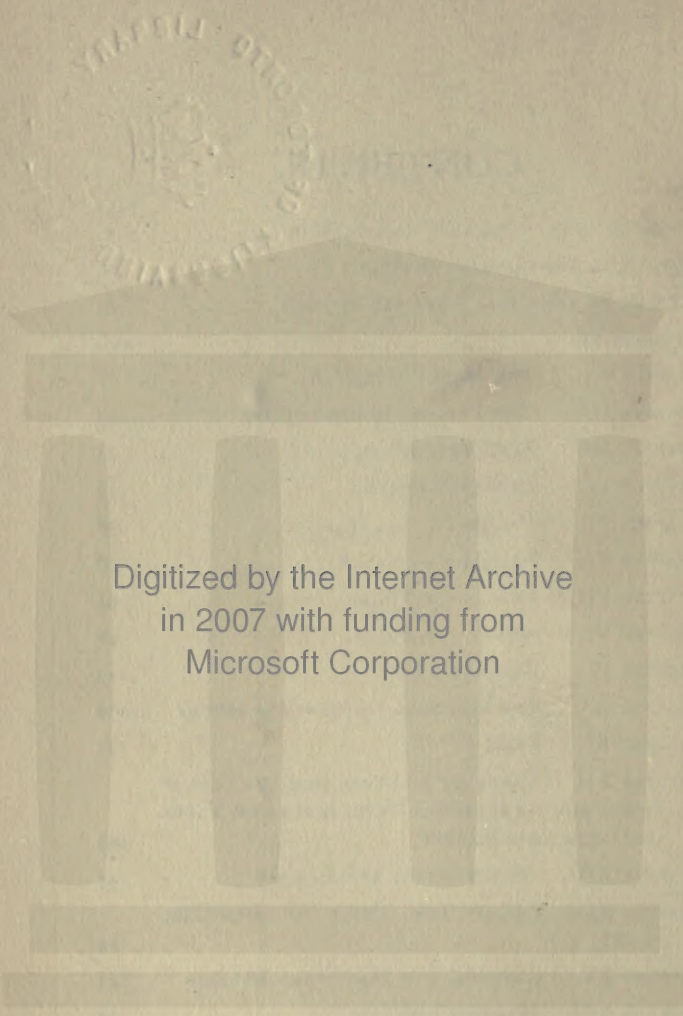

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REVIEW BY THE "PHILADELPHIA BULLETIN"

March 29th, 1895

Here is a book which disturbs classifications, which is unorthodox, which sets aside some very widely received opinions as of little worth, and which presents its own side of certain vital questions with a persistency and logical force from which it is hard for an unprejudiced reader to escape.

Despite the fact that we have long since learned to discredit the school of Adam Smith and Ricardo, we cling desperately to certain fallacies which lie at the base of their systems. We perceive that Adam Smith enunciated theories which, whether true or not at his time and under the conditions which he had in mind, are utterly false as applied to the United States to-day. Yet we continue to regard Adam Smith with a sort of filial piety as the father of political economy, whose every utterance bears the stamp of inspiration. We know perfectly well that Ricardo's Theory of Rent is as untenable as Malthus' Theory of Population; yet we hesitate to relegate both to the same limbo. Tradition is nowhere more powerful than in that experimental bundle of theories which we misname the *Science* of Political Economy, yet it is of the first importance that tradition be not suffered to blind us to the invaluable results of experience.

It is against tradition that Mr. Kitson squarely sets his argument. He sees—what many of us have been seeing for a long while—that the great source of traditional error is in the conception of the nature of value. If he had done nothing more than point out the broad distinction between the terms *value* and *purchasing power*, he would have deserved well of a long-suffering people. And even here, we think, he stops a little short of the truth, for not only is it true that value is a mere relation established by a process of exchange, while purchasing power exists independently of it, but (as has been previously insisted upon in this column) the

purchasing power of a commodity is wholly a *utility*, so that its relation to value is not only different, but opposite. The power of a dollar to purchase bread is as truly a *utility* as is the power of the bread to sustain life. When once we have grasped this truth, the theory of money becomes enormously simplified. The idea that a dollar must embody value to the extent of a dollar vanishes into thin air, because it is seen that the dollar derives its purchasing power from circumstances having nothing to do with the value of the commodity of which it happens to be composed. Moreover, that money becomes the best money which is not complicated with the question of commodity values. It is this latter fact which leads Mr. Kitson to announce the utter fallacy of what is called "Gresham's Law." It will be remembered that Sir Thomas Gresham, founder of the Royal Exchange, seeing that a less costly currency always drove out a more costly one, laid down the principle that "bad money always drives out good money."

What he meant was that a cheap currency drives out a dear one, which is a simple fact of observation. His error lay in the use of the terms "good" and "bad." For, as a matter of fact, that currency which is least complicated with the question of commodity values is the nearest to an ideal currency ; that is to say, it comes nearest to being a simple *title* to wealth, and not wealth itself. This line of argument leads to the admission that paper is a "better" money than gold. And, theoretically, this is true, just as the deed to a house is a "better" deed when written on parchment than when engraved on a gold plate.

Remembering always that money is merely a *title* to wealth, we are forced to the conclusion that it should not lock up or contain within its substance wealth itself: because in the latter case the fluctuations in value which pertain to all articles of wealth affect the purchasing power of the money, and so disarrange the primary conditions of trade.

But what is equally to be remembered—though Mr. Kitson has not been equally eager to point it out—is that the argument here advanced presupposes ideal conditions. The money which is advocated in the volume

under notice is ideal money. Theoretically, we believe the argument to be a sound one; the condition which it presupposes is one towards which we ought to strive—towards which legislation should tend. But it becomes a question of grave moment how far we may safely go in reducing theory to immediate practice. Just now the mercantile community is deeply perturbed over the struggle of mono-metallism and bi-metallism. That struggle would sink into nothingness the moment we realised Mr. Kitson's ideal of a paper currency bottomed solely upon public confidence and redeemable in the general wealth of the nation. The ratio of silver to gold would speedily settle itself if *both* were demonetised; and, after all, does not the fact that the legislative power can establish an arbitrary ratio for the coined metals prove conclusively that their *purchasing power* as money is something wholly apart from their *value* as commodities? This is the very point which Mr. Kitson seeks to establish. Of course, the answer which the practical man of affairs always makes to the theorist is the answer which Mr. Kitson must expect to receive to his very pertinent queries, and it is this: "While it is perfectly true that an irredeemable paper currency* is the ideal medium of exchange in a society of the highest civilisation, yet the civilisation to which we have attained is *not* the highest conceivable one; we have not yet reached the point where public confidence will remain unshaken after the outward and physical wealth behind a currency is removed. Of course it ought to; of course the locking up of millions of specie in order that millions of paper promises may circulate is an absurdity; of course the specie locked in a vault makes us not richer, but poorer, than if it were released. But we

*The writer of this review, who has evidently intended and endeavoured to do justice to the work, has failed to understand the proposals suggested in this book for an Ideal Monetary System. The Author has not advocated the issuance of irredeemable currency. On the contrary, he has insisted that money must be backed by wealth, and his objection to our present monetary system is that it compels commerce to use credit and substitutes for money, at the back of which there is not sufficient security. (See chapter on Rational and Irrational Banking.)

must take men as we find them, and that is just what the theorists do not always do. The utmost that we can accomplish is to point out the way, and trust to advancing education to bring public opinion to a just conception of the facts as they exist.

Mr. Kitson's several chapters treat of "Economics and Ethics," "The Factors of Production," "Wealth," "Exchange-Barter," "Value," "The Standard of Value," "Purchasing Power," "Money," "Gresham's Law," "Price," "Currency," "Credit," and kindred topics. But the end and aim of his whole argument is to build up a theory of money upon the lines of a purely mathematical induction. He follows Professor Jevons in the endeavour to show that all the terms with which political economy deals involve the consideration of *quantities*. But he diverges from Jevons at the point where the latter becomes illogical: for, indeed, it *is* illogical to define value as a "ratio of exchange," and then to talk about "a standard unit of value." It is manifest that we cannot have a "standard unit" of a "ratio." The notion that such a thing is possible is responsible for the theory that gold and silver can be at once a standard of value and a medium of exchange. When economists get rid of that theory the community will get rid of panics—not before. "Values are ideal creations, and can only be properly expressed in terms of the ideal—numbers." Such is Mr. Kitson's remarkable announcement, and it is one which entitles him to a front rank in economic discussion. His volume will be pooh-poohed by the orthodox philosophers, and all the fogies will hold up their hands in horror. But Mr. Kitson has got hold of the truth, and his theory cannot be permanently subverted. He has only to wait till education shall bring men up to his own level of thought, and so make it possible to conform practice to theory.

PREFACE

TO THE ENGLISH EDITION

MOST of the matter contained in this book was written in Philadelphia during the years 1893 and 1894—a time which will long be remembered as one of the most disastrous in the history of American Commerce. A radical departure from what had hitherto been the financial policy of the United States was inaugurated, and from this date commenced the period of a restricted monetary system with its make-believe gold basis, accompanied—as it must inevitably be—by a baseless credit system. This was also the commencement of the present era of Combines and Trusts, and it was largely through the new policy that what is now called "Morganism" became possible.

It will be interesting to review briefly the events which led up to this period, and culminated in such a series of disasters.

In 1892 Grover Cleveland was elected President of the United States on practically a Free Trade platform. The great issue between the two parties at that time was the protective measure known as the McKinley Bill. In fact the fundamental difference then existing between the Republican and Democratic parties, related to the Tariff. Both parties endorsed bi-metallism. The Republicans had passed the Sherman Silver Purchasing Bill, and "pointed with pride" to this measure as one of the great accomplishments of the Harrison administration on behalf of the country's business interests.

Up to that time, business in the United States had been fairly prosperous, and the monthly addition of several millions of dollars to the currency, provided by the Sherman Silver Purchasing Act, increased the facilities required by the nation's growing industries. But these facilities were viewed with great disfavour by the banks, since they served to lessen the demand for bank credit—upon which bankers thrive. To their complaints and direful prophecies the

business community paid little heed, since the Treasury Silver notes were circulating as readily as Gold notes. From neither of the two great political parties could the banks expect any sympathy or support. One course only remained, and that was to capture the successful candidate for the Presidency and depend upon his influence to procure the necessary legislation.

Mr. Cleveland was elected by a considerable majority as a rebuke to the high Protection party. It was expected that immediately after his inauguration in March, 1893, the President would convene Congress to repeal the obnoxious McKinley Bill. In obedience to the wishes of the people, Congress was indeed summoned, but to the amazement of Republicans and Democrats alike, the President's message was confined entirely to the Money question, and Congress was told that the measure fraught with the greatest possible danger to the nation was not the McKinley, but the Sherman Bill—a measure that had scarcely been honoured with discussion during the campaign! The Democrats had a majority in both Houses, and it was soon evident that since no better measure favourable to silver would receive the President's sanction, there was no likelihood of the Sherman Bill being repealed. It was discovered that the President was at issue with nine-tenths of the members of his own party on this question, and that nothing short of a "scare" would give the President the majority in Congress that he needed. The next step, therefore (which it is believed was devised by certain New York bankers to give the country an "object" lesson), was to hold a convention of representatives of the leading banks of the country, and arrange to restrict loans and call in those existing. Treasury notes were also collected and presented for payment, for which gold was demanded, and the gold reserve—usually maintained at $100,000,000—was steadily reduced. No attempt was made by the new Administration to stop this drain by refusing to pay the notes wholly in gold—a legal privilege which the Secretary of the Treasury held. Up to this time the Government had always used its discretion as to whether it

should redeem Treasury notes in gold or silver, and the bankers knew perfectly well that there was no law to compel the redemption of these notes entirely in one metal. It was plain that the "capture" of the Administration had been accomplished. This sudden shrinkage of the gold reserve, accompanied by the curtailment of banking accommodation, produced, needless to say, the necessary "scare." The effect was probably the most serious the nation had ever witnessed. Thousands upon thousands of manufacturers and merchants were ruined. Depositors were unable to withdraw their funds, and business was conducted by means of Clearing House cheques. Business men naturally sought to learn the cause of so sudden and unexpected a disaster. The information was volunteered by certain inspired newspapers that the trouble was due to the Sherman Silver Bill, and citizens were told that if they desired things to be restored to their normal condition they must write to the Members of Congress requesting them to vote for a repeal of this Bill. The plan succeeded, and when Congress again met, the President had little difficulty in getting the Bill repealed. It took the American people with all their natural resources four or five years to recover from this blow.

Whether the events which have since transpired as a natural sequence were or were not foreseen by the panic organisers it is impossible to say, but the consolidation of capital—which before 1892 was a somewhat difficult problem—became very simple under the so-called gold-standard *régime*. With the Government no longer a competitor, the banks rapidly combined for purposes offensive and defensive, and for all practical purposes the control of the currency under a single head became a possibility. Having the ability to employ so vast a power, the exploitation of the industries of America was readily accomplished. Undoubtedly the simplest and surest way for obtaining control of the industries of a country is to first get control of its currency. For the blessings or evils (whichever view one chooses to take) resulting from the formation of the great Trusts, we must credit the financial policy of

President Cleveland. In addition to having placed the nation's industries at the mercy of the bankers, another result of this policy was to indefinitely postpone the Free Trade era which was about to dawn upon the United States.

When the low tariff Wilson measure finally replaced the McKinley Bill, public interest in that question had disappeared, and was centred on the much more important one of finance, which afterwards became the main issue between the two parties.*

It is but fair to say that President Cleveland had no conception of the results that would follow the policy he inaugurated, for no one has denounced the system of Monopolies and Trusts more strongly than he, who was instrumental in creating that greatest of all—the Money Monopoly.

One beneficial result achieved by the panic of 1893 is yet to be mentioned—namely the exposure which was made of the dangers attending Monopolistic Banking. If the disasters of 1893 could be produced by a small body of men acting conjointly for a definite end, at a time when competition was keener than it is now, how infinitely greater are our present dangers, and how much easier to engineer a panic! But apart from the increased dangers to which commerce is now subjected by artificially created panics, periodic failures are inherent in our monetary system itself. As I have endeavoured to show in this work, the commercial world is forced into liquidation once every decade. Another serious financial panic is now imminent, and, under our present system, as inevitable as the rising and setting of the sun.

It is unnecessary to seek an explanation of panics in the theory of the solar system or the appearance of sun spots! The application of simple arithmetic is quite sufficient. Those who have given this subject careful and intelligent

* It will doubtless surprise many to learn that this was the only time when the question of Protection *v.* Free Trade was submitted to the people of the United States during the past twenty years as a single direct issue—unaccompanied by any other disturbing question—with the result that Protection was defeated. At every other Presidential Election during this period the issue has been confused by questions such as bi-metallism, the negro franchise, etc.

study must admit that our monetary systems cannot safely support the world's expanding trade and commerce for a much longer period. A breakdown is inevitable. One has but to examine the foundation supporting a building to realise its degree of stability or instability, and it surely needs no gift of prophecy to predict that the man who undertakes liabilities ten or twenty times greater than the total available assets procurable within the time of the maturity of his obligations, must fail. The same is true of nations. The obligations undertaken by governments and municipalities, and by the industrial and commercial world exceed to an almost incredible degree the total available material in which these obligations have to be redeemed!!

Neither mono-metallism nor bi-metallism will save the world from financial disturbances. Those who have the patience to follow the reasoning in the succeeding chapters of this book will see that nothing short of the *abandonment* of the theories and heresies which now pass current, and upon which the world's financial systems are built, will put an end to these disasters.

The experience of the past ten years which have followed the period above referred to, emphasizes most strongly the necessity for reconsidering the laws governing the monetary systems of the civilized world. This subject must necessarily become the most important with which political parties will have to deal in the near future.

The principal part of this work was written after a careful study of all the books and treatises on the subject available, and was originally published under the somewhat pretentious title of "A Scientific Solution of the Money Question." Its reception was much better than I had reason to expect, and the press dealt with it in a far more tolerant spirit than is usual where established customs and traditions are challenged and radical innovations proposed.

Certain critics, however, objected to the introductory chapters as irrelevant to the subject matter which occupies the main portion of the work. They described the discussion of the theories and statements of Adam Smith, John Stuart Mill, and Jevons as "the threshing of old straws."

One critic remarked that "the author seems to be ignorant of the fact that economics has become a new science during the past twenty years."

I am quite aware that the discussion of the assumptions upon which Political Economy is based is not new, and that these have been the subject of attack again and again.

I am also aware of the fact that many new and ingenious arguments have recently been furnished by Economists to shew the necessity for existing institutions, and the impossibility of preventing financial and industrial crises and ridding society of the scourge of poverty. But so far as its fundamental principles and assumptions are concerned, Political Economy stands where it did in the days of Adam Smith.

Another critic charges me with asserting that existing social evils are directly attributable to the Economists, and remarks that "it would be just as rational to charge the Geologists with being responsible for earthquakes!" This critic has failed to grasp my meaning, and the analogy is not well taken.

If the phenomena with which geology deals could be changed by human actions so as to affect beneficially or disastrously the human race—if earthquakes were the direct result of human operations—then Geologists would surely incur a grave responsibility by failing to point out what those acts were that caused such disasters, and how they might be averted.

Unfortunately, most writers on Political Economy regard poverty, financial panics and industrial crises as the inevitable result of natural laws, and as uncontrollable as earthquakes, or the motion of the heavenly bodies.

I have taken the objects of the science to be those propounded by its great exponent—Adam Smith. He says: "The science proposes two distinct objects, first, to supply a plentiful subsistence for the people—or more properly to enable them to provide such a revenue or subsistence for themselves; secondly, to supply the State or Commonwealth with a revenue sufficient for the public services. It proposes to enrich both the people and the sovereign

My main contention in the first chapter is that the science as it has been and is now taught in the educational institutions of the world, has not fulfilled those objects, and is therefore a failure.

To overestimate the importance to social life of Political Economy (of which money is a special branch) seems impossible, since it deals with the distribution of those material things that go to support life, and our aim should be to raise this study—if possible—to the position of an exact science, an accomplishment which will do more to rid society of the scourge of poverty than all the poor laws and philanthropic schemes ever devised.

Just now urgent appeals are being made throughout Great Britain on behalf of the unemployed. England is again afflicted with business depression, and able-bodied men tramp the streets daily begging for assistance—a condition similar to that prevailing in the United States when this work was originally written.

These afflictions will continue to reappear in spite of all our philanthropic measures until a general public interest is created leading to an intelligent study of this science in all its branches.

It is a deplorable fact (and one to which is accountable the continuance of a system which has been a failure many times during the past century) that not one person in ten thousand has any really intelligent idea of the science of money—a subject which is usually treated as one of profound mystery, and which only a banker is capable of understanding.

To one not blinded by custom and prejudice, the money question is quite comprehensible. But because of the prevalence of false and contradictory theories, students find the subject hopelessly involved in ambiguities and intricacies.

It is with the hope that it may evoke a spirit of inquiry leading to a clearer understanding of this most important subject that I am encouraged to republish this work.

LONDON, *January*, 1903. A. K.

"IF this so-called science Political Economy, did not busy itself with that with which all juridical sciences are concerned,—with furnishing an apology for violence,—it could not fail to overlook the strange phenomenon that the distribution of wealth and the exploitation of some men by others are dependent upon money, and that only by means of money do some people command the labor of others nowadays,—that is, to enslave them.

"In antiquity, with its frequent conquest of nations and the absence of human equality, personal slavery was the most wide-spread method of subjugating men.

"In the Middle Ages the feudal system,—that is, landed property and the accompanying serfdom,—partially supplants personal slavery, and the centre of gravity of subjugation is transferred from the person to the land.

"In modern times, since the discovery of America and the development of commerce, with the overflow of gold made the universal money token, the money-tribute has become, with the strengthening of governmental authority, the chief means of the subjugation of men, and by it are determined all the economic relations of men."

COUNT LEO TOLSTOI.

PREFACE

TO THE FIRST AMERICAN EDITION

IT is almost a quarter of a century since Professor Jevons gave to the world his now celebrated work, "The Theory of Political Economy," in which he demonstrated the possibility of treating economics as a purely mathematical science. He showed how all the terms with which it deals involve the consideration of quantities—are, in fact, strictly quantitative terms—such as utility, value, capital, interest, supply, demand and so on.

His treatment of the very ambiguous and hitherto mysterious subject of value, was the beginning of a new era in economic science, and it is to Professor Jevons that we are indebted for having rescued this most important subject from what seemed to be utter chaos, and for having brought the two terms, utility and value, into some sort of coherency. Notwithstanding the importance of his contributions to theory, however, his labors do not appear to have conferred any practical benefit upon the social affairs to which they relate,—to money, trade and industry; to those things which it is the aim of the science to both elucidate and facilitate. Nor do I believe any better showing can be made—anything of what Lord Bacon called "fruit" will be found—from all the labors of economists in this science during the past twenty years.

And yet there is nothing of more importance to the human race, nothing that stands in greater need of the light of science, than the subject of exchanges. Society is as much divided, and the opinions of the learned are as contradictory upon commercial and financial questions, as they were when Jevons commenced his famous work.

In spite of the able and voluminous contributions to the theory of Value, the Money Question—which is indissolubly associated with it, and depends almost wholly

for its solution upon a correct interpretation of this word — remains in the same unsettled, unsatisfactory condition as it did prior to the rise of the modern English and Austrian Schools.

The question arises, then, is the science of economics incapable of solving the all-important social problems with which it deals?

Is the science to begin with and end in mere theories—theories which apart from the mental exercise they afford, have no practical bearing upon the affairs of life? I think not. I believe that a true science of economics can and must answer satisfactorily and conclusively all the riddles that have been for ages propounded by the social sphinx. I believe such a science will enable mankind eventually to abolish want and the fear of it; to create such an abundance of wealth that all will have enough and to spare; a condition where over-production will mean a profusion of wealth, and its antidote will be found in satiety instead of starvation. I see no reason why economics should not do for trade and industry what the science of mechanics has done for the mechanical arts, or medicine and surgery for human life.

In the following pages I have attempted to sketch the direction in which a true science of wealth must inevitably lead, as well as the foundation upon which it must be built.

Although dealing mainly with what I believe to be the greatest problem of this age,—the Money Question,—I have digressed somewhat in the opening chapters, in order to enunciate a few leading principles to which the science must of necessity conform. I have also pointed out where, in my judgment, economists have invariably gone astray—a fact which explains the cause of the barrenness of the science, and its failure to bear tangible fruit. One error which prevented Jevons from developing his theory of value into a practical reform of the highest importance, I may be allowed to touch upon in this preface.

After defining value as the "ratio of exchange," and showing that it can be expressed only in terms of the ideal—numbers—he commits an almost unpardonable solecism in writing of "a standard unit of value" as "a fixed quantity of some concrete substance defined by reference to the units of weight or space." What "a fixed quantity of some concrete substance" has to do with a "ratio," and how a substance can become a standard "ratio," are questions that Professor Jevons failed to answer. The truth is that in spite of the clear definitions with which he set out, he afterwards confused his subject by employing the word "value" in a double sense: first, as the ratio of exchange; second, as purchasing power. Thus when speaking of a "standard unit of value," he evidently means purchasing or exchange power, *i.e.* the power conferred upon a commodity whereby it can be exchanged for a certain quantity of some other article of utility.

Again, how can "a fixed quantity of some concrete substance" represent a power not possessed by, nor residing in any substance, but merely conferred upon certain objects by human desires—a power that varies and fluctuates, that appears and disappears with those desires? To my mind there is only one way in which a commodity can be rationally considered to represent a unit of "value," *i.e.* purchasing power. We may select a given quantity of a certain commodity, 25 grains of gold, for example, and say that whatever the purchasing power of this amount of gold happens to be upon a certain day, or at a given time, shall represent the unit of purchasing power. But this is a very different thing from selecting 25 grains of gold as a *permanent unit.* No fixed quantity of any substance—not even gold—represents a fixed quantity of purchasing power for any length of time. It is only at any given instant that we may consider a commodity to have a certain amount of exchange power. If then, we follow the variations in the exchange relations of commodities from any given instant, having first priced them all at that time in

terms of the commodity selected as a standard, we have an absolutely correct and scientific system by which fluctuations in values may be registered with mathematical exactness, and which will be independent of the fluctuations in gold or any other single commodity.*

The mistake of Jevons and other economists was in omitting the element of time from their definition of a standard unit—an error similar to that in disregarding the degree of temperature at which the metallic bar that serves as the standard of length is to be taken. Of course the introduction of time destroys all hope of our ever possessing a *material* unit of value or purchasing power—a thing to which altogether too much importance has hitherto been given. Values are ideal creations and can only be properly expressed in terms of the ideal—numbers. In Chapters V to VIII, as well as XI and XII, I have dealt fully with this question of the ideal, and have shown how an absolutely invariable ideal unit of purchasing power may be obtained, and how impossible and unnecessary it is to employ "a fixed quantity of some concrete substance" as a unit.

The difficulty that the monometallists and bimetallists are vainly contending against, but which they are unable to perceive, is, attempting to do with the *material* what can, from the very nature of things, only be performed by the *ideal*, viz., express and register fluctuations in values.

To those who may think the conclusions arrived at in this work visionary or impracticable, I would say that so far as the use of an ideal monetary unit is concerned, we already possess one, and fully 999 out of every 1000 persons use money to-day in this ideal sense. Probably not one per cent. of the population could tell what the dollar or the pound sterling represents in bullion. What everybody does know, however, is that a dollar and a sovereign represent just so much purchasing power, and that this is not due to the metal they contain, but solely on account of the credit of the issuer, and of the fact that the exchange relations of all goods are

* See illustration on page 94 (Purchasing Power).

expressed in pounds, shillings and pence, dollars and cents, or some similar ideal units.

The universal employment of token coins, paper money, etc., is an unanswerable argument to those who believe an ideal monetary system impracticable.

It may be thought by some that I have explained certain points with unnecessary prolixity, and the criticism of repetition may likewise be urged with a certain amount of justice. My answer to this is, that as far as I know, my treatment of this question is in the main entirely novel, and the subject one of an exceedingly abstract nature; and in striving to make the subject clear and intelligible to the average reader, I have preferred incurring the charge of repetition to that of ambiguity. The reiteration of a truth will harm no one. The evil to be avoided, especially in a subject of this nature, is obscurity.

The title of the book may seem somewhat pretentious.* I do not wish it to be inferred that I am vain enough to believe this work to contain anything more than an indication or suggestion of the direction in which we must necessarily look for the final solution of this problem, which has been the great social riddle for centuries.

In this discussion I have endeavored to show the necessity for dealing with the question wholly from a scientific standpoint. As a general rule its discussion has hitherto been confined to those who may be regarded merely as representatives of private interests—advocates of certain schemes, monometallists, bimetallists, free-silverites, green-backers, etc.—whose labors consist in attempts to create a science that shall harmonize with pre-organized, pre-arranged institutions. My aim has been simply to arrive at the truth, irrespective of any interests which it may favor or condemn.

If this work should in any way lead to a reconsideration of the laws under which the greatest and most dangerous monopoly of the age is maintained, and by

* The original title was "A Scientific Solution of the Money Question."

which millions of men are doomed to suffer inevitable failure—if it should assist in freeing money—that most useful and ingenious of all human inventions for facilitating commerce,—from legislative restraints, and thereby emancipate industry from the bondage into which legislators have placed it, the object for which this book was written will have been fully accomplished.

ARTHUR KITSON.

PHILADELPHIA, *August 15th*, 1894.

INTRODUCTION

"For my part, I have sworn fidelity to my work of demolition, and I will not cease to pursue the truth through the ruins and rubbish."—PROUDHON.

THE period commencing with the year 1890 and extending to the present time* will long be remembered as one of almost unparalleled business disaster throughout the civilized world. No nation has escaped the wave of industrial depression which, commencing with the failure of a London banking house, a few years ago, has swept over the entire globe. And nowhere have the effects been more severe than in the United States. "No other country," says a magazine writer,† "has ever incurred in so short a time such an amount of financial and industrial disturbance and disaster." Mills, factories and workshops have closed, banks have suspended, and thousands have been suddenly reduced from affluence to poverty, whilst hundreds of thousands of wage-earners have been cast adrift to beg, starve, or join the ranks of those numerous bands of malcontents who, from almost every State in the Union, are now marching towards Washington.‡ This period has been marked by no extraordinary natural calamities, such as famines, fires or floods, which occasionally precipitate whole communities into destitution. The factors in the production of wealth have been as prolific and as responsive as during any previous years of industrial prosperity. Men have been none the less eager to labor, machinery none the less efficient, and nature has not failed to respond as readily to the call of labor with bountiful harvests of wealth. There never was a period in the world's history when the factors of production were, as a whole, more efficient, when so much wealth could be created in so

* This was originally written in 1893. See Preface to English Edition.

† David A. Wells, in "The Forum."

‡ Coxe's Army.

short a space of time and with so little expenditure of human energy, as now. Notwithstanding all this, we are to-day experiencing calamities greater in degree and more extensive than any that nature has ever produced. Millions of the world's inhabitants have been reduced to a condition as bad as though the fruits of their labor had been suddenly swept out of existence, or pestilence and famine had held undisputed sway. Although severer and more universal in its ravages, the present panic belongs to the same order as those of previous years. Appeal to those whose business it should be to investigate and interpret this class of phenomena, discloses a rather humiliating state of things, for the opinions of statesmen, financiers and economists are as diverse regarding the cause of financial panics as it is possible to imagine. Be the cause, however, what it may, the fact remains that after more than a century's experience, during which there have been not less than ten severe panics, no scientific explanation has yet been offered by either statesmen or economists for these decennial commercial crises, nor has a satisfactory remedy for their recurrence been suggested.

Since the trouble evidently does not arise in the production of wealth, we may reasonably expect to find it somewhere in the mechanism of distribution. Complicated as is the machinery of modern commerce, it requires but the least reflection to perceive that the money question is the mainspring of the industrial world. That panics are known as *financial* panics is indicative of the fact that these troubles originate from disorganization of the mechanism of exchange. ***Panics never arise in the industrial world unless precipitated by financial disorder.*** In other words, instead of finance being the servant of industry, industry is the tool of finance, and the entire production and exchange of wealth is now controlled by those who control the money of the world. Startling as it may seem, it is nevertheless true that the power to paralyze industry is in the hands of a comparatively few individuals, amongst whom

concerted action can be effected at any time. This is a serious and menacing condition of things, and so long as it exists the lives and fortunes of almost the entire human race are virtually at the mercy of these men. The manner in which this condition of things has been brought about is largely due to two or three fallacies underlying the world's monetary systems—fallacies which have become strongly intrenched by law, and with others equally false, form the basis of the present so-called science of economics. To fully perceive these errors we must examine them in both root and branches. I shall therefore first of all briefly discuss a few of the premises and assumptions of the present system of political economy. Following that I shall proceed to a discussion of the money problem.

Let us at the outset clearly understand what the money problem is. Fundamentally it is merely a question of commercial equity. It is the establishment of a system by which justice shall be meted out to wealth-producers. The great and pressing demand for money which has been so acute during the past century, is due to the specialization of industry. Few men at the present day are employed in making goods for their own consumption. Speaking generally, all production is now carried on by individuals for society, and the great function of money is to register the proportion which each producer's commodity bears to the total quantity of goods brought to market. It is likewise a certificate, entitling him to receive that same proportion of wealth in any form he may desire.

Here, for instance, is an engine builder. He and his men devote themselves to the manufacture of a machine for which they have no personal use. To society the engine is indispensable. In order that engine building may continue, it is necessary that those so engaged shall receive food, clothes, shelter, and all the necessaries and comforts of life—products which others are engaged in furnishing for exchange. Engines are sent to market to exchange for these other forms of wealth.

The question that really concerns the engine builder is, in what relation do his engines stand to all those

things which he needs? How much of them will they purchase? This proportion is determined by the law of supply and demand, a law which under free conditions makes for justice. A scientific monetary system should register these exchange proportions of commodities faithfully, without affecting the natural law of supply and demand in the slightest degree.

In the following chapters I shall endeavour to describe a method by which the proportion of each man's produce to the whole mass of wealth may be determined. This system is nothing more than a numerical system. It ranges all commodities, one above another, in terms of a common denominator. It furnishes a neutral price scale upon which the fluctuations in the supply of and demand for goods are accurately recorded.

I shall shew that no commodity can possibly perform these functions, and that financial disasters are the inevitable results of endeavouring to substitute the material for the ideal.

Let us proceed at once with our task.

Chapter I.

THE MONEY QUESTION

"It is surely a sad symptom for a science, when, in developing itself according to its own principles, it reaches its object just in time to be contradicted by another; as for example: when the postulates of political economy are found to be opposed to those of morality, for I suppose morality is a science as well as political economy. What, then, is human knowledge, if all its affirmations destroy each other, and on what shall we rely?"—*System of Economical Contradictions:* PROUDHON.

"That which is altogether just shalt thou follow, that thou mayest live and inherit the land."—DEUT. XVI. 20.

"In proceeding towards any given point, there is always one line which is the shortest—the straight; so in the conduct of human affairs there is always one course which is best—the just."—ANON.

MODERN civilization, which, as we are taught to believe, transcends that of any period in the world's history, may be said to be entirely the result of modern scientific thought. Nothing serves to illustrate so well the difference between the civilization of ancient Greece, for instance, and our own, as to compare the mental attitude of the Platonists toward the sciences, with that of the nineteenth century philosophers. By the former, science was studied not for the purpose of adding to the material comforts of life, nor to satisfy the vulgar appetites or wants of man, but to exalt the mind to the contemplation of "pure truth" and of things "which are to be perceived by the intellect alone." To bring science to the aid of manufacture was supposed to

degrade what was regarded as a purely intellectual pursuit. Inventions were despised as beneath the dignity of philosophy and fit only for craftsmen. Hence we learn that Archytas, who "had framed machines of extraordinary power on mathematical principles," was persuaded by his friend Plato to abandon mechanics as unworthy the attention of a philosopher. So we read that Archimedes considered geometry degraded by being employed in the production of anything useful, and "was half ashamed of those inventions that were the wonder of hostile nations."

The high esteem in which science to-day is held is wholly on account of what the ancients termed its "vulgar utility." We prize mathematics, not because it leads to the contemplation of "the immutable essence of things," but because it enables us to solve problems connected with the industrial arts and the ordinary affairs of life; so, too, with all other sciences. The age of speculation has given place to the age of practice. What to the ancients was the end of learning, viz., cultivation of the intellect and strengthening of the memory, is to us but a means to an end, and that end is human happiness.

In judging the merits of any science we are accustomed to inquire "What is its use?" "To what purpose is it applicable?" And our respect for it depends upon its demonstrated utility.

Of modern sciences none stands more discredited than political economy, nor have the claims of any branch of knowledge to rank as science been more persistently opposed. Transcendently important to human life as are the phenomena with which it deals, it is questionable whether any branch of knowledge is less generally understood, or commands in the popular mind so little respect.* Nor shall we be greatly surprised at this if we critically and fearlessly examine its doctrines in the light of existing science.

For many years past the civilized world has been confronted with problems which it is the professed aim of political economy to solve. And what do we find? Nothing but discord, disagreement and uncertainty among its doctors.†

The diagnoses of its various schools are contradictory. One school tells us the cause of industrial crises is "over production"; another "under-consumption"; another says it is due to the credit

* After enumerating certain reforms that political economy has effected, Walter Bagehot says: "Notwithstanding these triumphs, the position of our political economy is not altogether satisfactory. It lies rather dead in the public mind. Not only it does not excite the same interest, but there is not exactly the same confidence in it. Younger men either do not study it, or do not feel that it comes home to them, and that it matches with their living ideas. They ask often, hardly knowing it, will this 'science,' as it claims to be, harmonize with what we now know to be science, or bear to be tried as we now try science? And they are not sure of the answer."

† "Every country," says S. Laing, "has a political economy of its own."

system, whilst another holds the tariff responsible. Their prescriptions are found to be similarly antagonistic. One class prescribes greater freedom of trade, another greater restriction. This professor suggests the free coinage of silver, and that one denounces it; whilst with regard to Trusts, Trade Unions and similar combinations, an equal number of economists may be found supporting opposite, antagonistic views. With such diversity of opinion, we can hardly wonder that the science stands in such bad repute.

Political economy deals with the production and distribution of wealth, and its main object is to discover those laws and principles, guidance by which will tend to the material well-being and prosperity of the human race. "Considered as a branch of the science of a statesman or legislator, political economy," says Adam Smith, "proposes two distinct objects: First, to supply a plentiful subsistence for the people, or more properly to enable them to provide such a revenue or subsistence for themselves; secondly, to supply the State or Commonwealth with a revenue sufficient for the public services. It proposes to enrich both the people and the sovereign."

How happens it, then, that in spite of so many miracles of industry science and art, comfort and culture have not become the inheritance of all? How happens it that in Paris and London, centres of

social wealth, poverty is as hideous as in the days of Cæsar and Agricola? *

Look, for instance, at the condition of the wealthiest nation on earth,—England. Here—the birthplace of modern political economy—statesmen and legislators have been largely guided by its teachings. It is said that the "Wealth of Nations" revolutionized the opinions of England's ministers and caused them to enter upon a new policy in accordance with the doctrines propounded by the great English economist. Clubs were formed for the study of economic questions, and statesmen vied with each other in seeking to bring the commercial laws of England in conformity with those of the new science. According to the judgment of one of England's foremost statesmen and economists, the great work of political economy has been achieved.

"The controversies which we now have in political economy," said the Rt. Hon. Robert Lowe, many years ago, "although they offer a capital exercise for the logical faculties, are not of the same thrilling importance as those of earlier days. The great work has been done." Let us now look at the results. Bearing in mind that the object of the science is "to provide a plentiful revenue or subsistence for the people, and supply the State with

* This question, asked by Proudhon more than half a century ago, is still unanswered.

a revenue sufficient for the public service," let us take a brief survey of "the great work" that Robert Lowe said "has been done."

"In the wealthiest nation in the world," says John Rae, "every twentieth inhabitant is a pauper; one-fifth of the community is insufficiently clad; the agricultural laborers and large classes of working people in towns are too poorly fed to save them from what are known as starvation diseases; the great proportion of our population lead a life of monotonous, incessant toil, with no prospect in old age but penury and parochial support; and one-third, if not indeed one-half, of the families of the country are huddled six in a room, in a way quite incompatible with the elementary claims of decency, health or morality."

"Our exports during the past quarter of a century," wrote Professor Fawcett, "have advanced from £50,000,000 to more than £250,000,000, and our imports have increased to a still greater amount; yet, incredible as it may on first consideration appear, it can, I believe, be proved that whilst there has been this unprecedented increase of wealth, the remuneration of labor has in many instances scarcely advanced at all."

Speaking of the industrial condition of Scotland's greatest city, Matthew Arnold said: "Who that has seen it can ever forget the hardly human horror, the abjection and uncivilizedness of Glasgow?"

"Nothing is more certain," wrote Professor Cairnes, "than that, taking the whole field of labor, real wages in Great Britain will never rise to the standard of remuneration now prevailing in new countries, a standard which, after all, would form but a sorry consummation as a final goal of improvement for the masses of mankind. . . . The exertion of labor and capital produce 5, 10, 20 or 100 times more than it did 100 years ago. Yet wages have not increased in any such ratio, and it is even questionable whether profits have risen. . . . The large addition to the wealth of the country has gone neither to profit nor to wages, nor yet to the public at large, but to swell a fund ever growing, even while its proprietors sleep—the rent-roll of the owners of the soil."

Here it is apparent that political economy has failed to achieve what its chief apostle designated to be its special mission, nor do we find in turning to other nations with their several schools a much better state of things. "Any one," wrote Professor Huxley, in his "Social Diseases and Worse Remedies," "who is acquainted with the state of the population of all great industrial centres, whether in this or other countries, is aware that amidst a large and increasing body of that population, la misère reigns supreme. I have no pretensions to the character of a philanthropist, and I have a special horror of all sorts of sentimental rhetoric; I am

merely trying to deal with facts, to some extent within my own knowledge, and further evidenced by abundant testimony, as a naturalist; and I take it to be a mere plain truth that throughout industrial Europe there is not a single large manufacturing city which is free from a vast mass of people whose condition is exactly that described, and from a still greater mass who, living just on the edge of the social swamp, are liable to be precipitated into it by any lack of demand for their produce. And with every addition to the population, the multitude already sunk in the pit, and the number of the host sliding towards it, continually increase."

"In the United States," says a well-known author,* "squalor and misery and the vices and crimes that spring from them, everywhere increase as the village grows to the city, and the march of development brings the advantages of the improved methods of production and exchange. It is in the older and richer sections of the Union that pauperism and distress among the working classes are becoming most painfully apparent."

"I have been told," says a clergyman† who witnessed the recent great railroad strike, "that the average wages paid by the Pullman Company are $1·87 per day. I doubt it much. It is claimed

* Henry George, in "Progress and Poverty."

† Rev. Mr. Cawardine, Methodist minister at Pullman, Ill.

that the men are not receiving 'starvation wages.' I know many of which this is true, but they are the exception and not the rule. I know a man who has had, after paying $14.50 rent for four small rooms and seventy-one cents for water rent, but seventy-six cents a day left to feed and clothe his wife and children. When we remember that this is an average case, that it is on the basis of full time, then in the name of all that is just and right, I say God help that man if his dependents be many or if sickness invade his home."

This is a description of what exists in America's so-called "model town." "It is," says the same gentleman, "a civilized relic of old-world serfdom. To-day we behold the lamentable and logical outcome of the whole system."

During the recent great coal miners' strike throughout this country the following press despatch appeared in all the newspapers: "I have never seen such a discouraged set of men as the miners of this neighborhood have been since the last reduction was made. They know it matters not how steady they work, they cannot make enough money to keep a small-sized family in the necessary food, and they have concluded that if they have to starve, they prefer doing it at once and not by degrees."

Here in the two wealthiest and most civilized nations, we find labor leading a miserable existence,

in a chronic state of warfare against capital, and periodically striking for "living" wages. Under the régime of institutions considered necessary by this so-called science, society presents us with the two extremes of vast wealth and wretched poverty side by side; of the wealth-producer doomed to a poor existence, and the non-producer born to a life of luxury. With such results drawn from experience, what other judgment can we pronounce upon a system which works out so differently from what is desired, than that of being false and unscientific? What faith can we place in a "science" the object of which is "to enrich both the people and the sovereign," that fails so completely in its main object?

But the question arises, "Have the principles of political economy had free play in any industrial community where poverty still exists?" "Have those nations in which poverty progresses with wealth been governed by its precepts?" The patient who neglects to follow his physician's advice cannot justly hold him responsible for failure to regain health. So far as England and the United States are concerned there can be little doubt that in all essentials the laws of each nation have been, in the main, favorable to the workings of its respective school—schools which, while differing in matters pertaining to foreign trade, agree in almost every other branch. There can be no question that the production of wealth during the past century

has been enormously in excess of any, within a similar period, that the world has ever known. But with the production of wealth, economics has had comparatively little to do. This growth of production has been due to invention, discovery, and the physical sciences. It is with the distribution of wealth the science is chiefly employed, and it is in this particular where it has failed. In each country we find wealth distributed amongst the various factors, in rent, interest and wages, according to the laws governing these respective institutions. We find supply and demand governing the prices of all commodities, even the factors themselves. Exchange is carried on by the methods and rules approved by leading economists. Money is regarded by merchants in the same light as the highest authority on finance regards it, and gold has become—thanks to economists and legislators—the universal basis for currency. The doctrines of Malthus are found to work like a charm, and the man for whom capital has no employment, finds no plate set for him at nature's banquet. In our dealings with each other we have imbibed the supreme principle of political economy—selfishness, and the three cardinal virtues, abstention, deception and avarice are universally practised.

So closely has the fundamental law of this science—to gratify one's desires with the least expenditure of energy—been followed, that a

considerable percentage of the race have devised schemes for living without the expenditure of any energy at all—on their part. We have acquired not only the art of buying in the cheapest, and selling in the dearest markets, but modern ingenuity has discovered a plan for controlling the markets themselves, thus making goods cheap or dear at pleasure.

In conformity with economic teachings we have abolished the duty of alms-giving—a system which served to mitigate to a considerable extent the miseries to which the laboring classes were exposed during mediæval times—and have enacted tramp and vagrancy laws, thus making poverty a crime. We have learned to treat labor absolutely as a commodity and have made it entirely subservient to the laws of supply and demand, notwithstanding our high pretensions regarding the immorality of slavery. In short, our modern commercial and industrial system seems to conform entirely to the principles and teachings of orthodox economists. So far, then, it is fair to say that the principles of political economy have had reasonably free play in the countries we have been considering, and therefore we are warranted in passing judgment upon the system which bears such fruit. But it will be contended that though conditions are bad, they are better than they were and are continually improving; that although labor

is admittedly in a "dim-eyed, narrow-chested condition," it is slowly but surely gaining in health and happiness.

For instance, we are told by an optimistic economist, Mr. W. H. Mallock, that "the poorer classes as a body have advanced and are advancing enormously."* Another writer informs us that the pauper of to-day enjoys comforts and privileges unknown to even the nobility of a few centuries ago. Against the statements of Mr. Mallock, however, we have that of Prof. Thorold Rogers: "I have protested against that complaisant optimism which concludes because the health of the upper classes has been greatly improved, because that of the working classes has been bettered, and appliances unknown before have become familiar and cheap, that therefore the country in which these improvements have been effected must be considered to have made for all its people regular and continuous progress." And again, "relatively speaking, the working man of to-day is not so well off as he was in the 15th century." He adds, "the freedom of the few was bought by the servitude of the many."†

We have also the statements of both Professors Fawcett and Cairnes before quoted. We have likewise the evidence gained from experience in all

* "Property and Progress."

† "Work and Wages."

new countries of the inevitable growth of poverty with the progress of wealth. But outside of any opinion, the fact remains that after a century's unprecedented growth of wealth, the one human factor in production still remains as a class, within sight of starvation, and unable to face, unaided, what are known as "hard times."

If we look within the realm of the science itself, we find it affording far greater cause for wonder and amazement than food for instruction. Starting originally with the intention of discovering laws by which the greatest amount of wealth can be produced and enjoyed by society, it concludes by showing how wealth can best be conserved by controlling and limiting the production of human beings. The problems which were originally propounded have become inverted. Acquisition of the means of wealth-production is set forth as the end of social existence. Instead of wealth being produced for the benefit of mankind, the right to life, by the majority of beings, is regarded solely from the standpoint of their ability to create wealth, whilst often this right is denied. Listen to the following passage from Malthus: "A man who is born into a world already occupied, his family unable to support him, and society not requiring his labor, such a man, I say, has not the least right to claim any nourishment whatever; he is really one too many on the earth. At the great banquet of nature there is no

plate laid for him. Nature commands him to take himself away, and she will not be slow to put her order into execution."

The least intelligent person can hardly fail to perceive that under those laws which economists declare essential to social progress, nine-tenths of the people are the servants or slaves of the other tenth, whilst the whole of society is dominated by and subordinated to the things it produces.

"Although labor is the starting point in production," writes Prof. Jevons,* "and the interests of the laborer the very subject of the science, yet economists do not progress far before they suddenly turn around and treat labor as a commodity which is bought up by capitalists. Labor becomes itself the object of the laws of supply and demand, instead of those laws acting in the distribution of the products of labor. Economists have invented, too, a very simple theory to determine the rate at which capital can buy up labor. The average rate of wages, they say, is found by dividing the whole amount of capital appropriated to the payment of wages, by the number of the laborers paid; and they wish us to believe that this settles the question."

In the branch known as exchange we find the same remarkable inversion of the natural order of

* "Theory of Political Economy."

things. The mechanism for distributing wealth has become the highest form of wealth. Money, instead of remaining the medium or tool of exchange, has become its ultimate object, and commodities, although produced for consumption, are regarded mainly from the standpoint of their ability to produce that which should function solely as a means for exchanging them. In place of finance serving industry we find industry the slave of finance. Universally good harvests and general increase in production and manufactures are regarded with dismay by producers as leading to over-production and consequent starvation, whilst a wholesale destruction of wealth by fire, flood or war is hailed as a boon to the masses.* In fact, regarded from a rational standpoint, the whole commercial and industrial world appears to be standing upon its head.

Whilst recognizing wealth as essential to social life, orthodox political economy demonstrates that the conditions favorable to its growth do not conduce to social health. The laws that lead to wealth production lead to starvation. Over-production

* Since writing the above, I have cut the following from the *Philadelphia Inquirer*, Aug. 6th, 1894: "The reports of serious damage to the corn crop have advanced the price of that grain five cents a bushel, making an advance of eight cents in two weeks. The grain is now seven cents a bushel higher than at this time last year; and yet it does not appear that the crop will be any less in 1894 than it was in 1893. *The higher price at which the grain is now quoted thus means prosperity to a very large and important consuming element in the population.*"

and want go hand in hand. The self-same laws that govern distribution of the means of existence, are continually urging man towards destruction. Life and death are inextricably mixed up in all its prescriptions.

The original problem was "How can wealth be controlled to serve the best interests of society?" To-day the problem is "How can nine-tenths of society be controlled to serve the interests of existing wealth?"

Viewing it from an ethical standpoint we shall find still further grounds for astonishment. "Political economy generally," says Professor Smart, "is based on the analysis of economic conduct."* Yet we find economic conduct to be utterly irreconcilable with any standard of right conduct. Not only so, but economists have not hesitated to proclaim economics and ethics as irreconcilable. "Moral considerations have nothing to do with political economy," says John Stuart Mill. "The economic 'want' is not necessarily a rational or a healthy want," says Prof. Smart.

Prof. Cairnes writes: "I am unaware of any rule of justice applicable to the problem of distributing the products of industry; and any attempt to give effect to what are considered the dictates of justice, which should involve as a means towards

* Introduction to "The Theory of Value."

that end, a disturbance of the fundamental assumptions on which economic reasoning is based, more especially those of the right of private property and the freedom of individual industry, would, in my opinion, putting all other than material considerations aside, be inevitably followed by the destruction or indefinite curtailment of the fund itself, from which the remuneration of all classes is derived." He adds, "As to the amount of truth or morality which these several maxims of political economy embody, I am not concerned here to enquire. My business with them has reference exclusively to their efficacy as rules for regulating the production and distribution of wealth."

So might the navigator say, "As to the correctness or incorrectness of the ship's compass I am not concerned to enquire. My business is simply to sail the ship."

So the metaphysician might say, "As to the truth or correctness of my premises, I am not concerned to enquire. My business with them is simply to arrive at logical conclusions."

To my mind there is something amazing in these statements of Mill and Cairnes. How they could believe they were building a science governing human actions—for the production and distribution of wealth is entirely regulated by human actions—without any regard to that science which governs right conduct, is to me inexplicable.

With Proudhon we may remark: "It is surely a sad symptom for a science, when, in developing itself according to its own principles it reaches its object just in time to be contradicted by another."

We now pass to a consideration of the premises upon which the science is built. Economists assert that wealth is the resultant of three factors: land, labor and capital. Allowing, for a moment, the assertion, we must recognize that this classification places all human exertion under one heading, viz.: labor. Hence there is but one human factor in production; and since, in order to maintain and properly develop them, the factors must be properly nourished and replenished from wealth produced, in the absence of anything to the contrary, reason would suggest that all wealth should be divided among them in proportion to their needs; *i.e.* the land should be properly fertilized and irrigated, capital replenished and the balance should go to labor. This would seem to harmonize with the principles of ethics. To parody a political adage we may justly say "to the factors belong the spoils."

But what do economists say? "The products of industry," say they, "are divided into three parts. One part goes for use of land and is termed rent; another to labor and is called wages; and another to capital and is known as interest." Instead of rent going to the land, then, it goes as payment for use to a landlord and interest is similarly

paid to a capitalist. But to what purpose are these portions of wealth, which are paid to landlords and capitalists, applied? To fertilizing land and repairing capital? Not necessarily. The main disposition of this wealth is used to support the landlords and capitalists themselves, rather than maintain the factors that they represent. With this question, however, economists do not bother themselves. There is here, evidently, some gross error, something entirely misleading and wholly unscientific. Beginning with three factors in production, *one* of which is human, economists end by distributing wealth among three factors, *all* of which are human. As factors in production, landlords and capitalists do not appear. On what basis, then, do they appear as factors in distribution? "Rent," they say, "is for the use of land." Now the natural payment to land for its use is labor. There is no just reason to exact payment for use unless the thing is used. To use land is to work upon it,—to labor. Without such labor there can be no return, for nature gives only to labor; hence, the payment nature demands is labor. To use is to employ, and to say that *land* is an agent in production, and the *use of land* an agent, is one and the same thing. In other words, land as a factor necessarily means its use, and the natural payment for use is labor. Labor is, in fact, nature's rent. To pay rent to a landlord, therefore, means a double tribute. But land is nature's product, and her rent

there is not the slightest possibility of evading. What part, then, does the landlord furnish? Where is his *quid pro quo?* To these questions political economy gives but evasive answers; and yet, if it be a science it must answer them, and answer satisfactorily.

Again, interest we are told is the reward for abstinence.* Now although the term "reward" is sometimes used as meaning natural result, it is more often used to signify a gift, donation or present, *i.e.* something given to a person which does not naturally result from his labor or services. The reward of labor is the term as used more often in the first sense, whilst a reward for bravery is used in the second. In which sense, then, is the term interest—the reward for abstinence—used? Let us see.

* "The claim to remuneration, founded on the possession of food available for the maintenance of laborers, is of another kind—remuneration for abstinence, not for labor. If a person has a store of food, he has it in his power to consume it himself in idleness, or in feeding others to attend on him, or to fight for him, or to sing or dance for him. If, instead of these things, he gives it to productive laborers to support them during their work, he can, and naturally will, claim a remuneration from the produce. He will not be content with simple repayment; if he receives merely that, he is merely in the same situation as at first, and has derived no advantage from delaying to apply his savings to his own benefit or pleasure. He will look for some equivalent for this forbearance." "Principles of Political Economy," Book I, chap. 1: JOHN STUART MILL.

[The absurdity of this statement is exposed by economists themselves. For wealth becomes capital only by employment. Wealth must be used and consumed in order to become productive. It is use, not abstinence, that is productive.—AUTHOR.]

If I abstain from the practice of certain vices I escape the pain and misery that I should otherwise suffer. This is the "reward" or natural result of abstinence. If, on the other hand, I abstain from eating and drinking for a long time, I become weak and faint, and if abstinence is continued sufficiently long, I shall die. This is also the "reward," or rather the penalty of abstinence. Now by abstaining from the consumption or use of a thing, I can do no more than preserve it for a certain length of time, whereas by using or consuming it I deprive myself of its future use. Things do not grow, nor enlarge, nor develop by mere abstinence. "You cannot have your cake and eat it. Of course not; and if you don't eat it, you have your cake—providing the mice do not get at it during the night—but not a cake and a half."* On the contrary, things deteriorate without use. Iron will rust, wood decay, stone perish, cloth become moth-eaten, food will rot, metals oxidize, in fact all of man and nature's products undergo dissolution sooner or later. *There is no such thing as unchangeableness in wealth.* The natural result of abstinence is seldom more than temporary preservation of a thing we abstain from using or consuming; and in very many cases things are preserved longer by use than by withholding them from use, such as factories, houses, machinery, etc. In some cases use

* Ruskin.

improves the condition of things. A machine will become more efficient after employment, owing to the reduction of friction. A horse improves with judicious exercise. A steamship is not considered as safe when first built as after several voyages.

The result then is this: Unemployed wealth in some cases gradually deteriorates, and in others perishes utterly and instanter. *In no case does mere abstinence create increase.*

Consideration of political economy from all sides, shews us that it is unscientific. It does not accomplish what it professes, it fails to solve the problems with which it deals, it refuses to harmonize with established science, it is incoherent, illogical, irrational. When we consider how different are the results of the operations of many of its teachings from those predicted, we shall see that it has, on the whole, not even reached the stage of undeveloped science, *i.e.* qualitative prevision. In fact, political economy, as taught and practised, is simply in the elementary stage of empiricism. Whilst there must necessarily be serious incompleteness in all sciences in their formative stages, still we can hardly conceive that system to be scientific which, in proportion as it is developed, becomes more and more opposed to some other branch already established. The question then arises, is political economy incapable of development into an exact science? Admitting as we

must do, the comparative worthlessness of the present "incoherent ensemble of theories to which the name of political economy has been officially given for more than a century," must we despair of raising it to the utility of the physical sciences? I think not. I purpose demonstrating the cause of past failure, and showing the utter futility of endeavouring to build a science on the lines prescribed by economists. I shall also endeavour to point out what, in my judgment, is the right road to success.

Let us at the outset clearly understand what political economy is, and what it deals with. Its object will then be apparent.

The term "economy" comes from the Greek, "oikos," a house, and "nomos," the law. Hence "economy," the law regulating the household — a term which to the Greeks signified all the goods in possession of the family. "Political" comes from "polis," the state. Political economy, therefore, signifies the law or laws governing the goods in the possession of the state or of society; or as we would now say, the laws governing social wealth. The term wealth is of Saxon origin, and means literally "weal" or "well-being." *Political economy deals then with the production and distribution of those things that tend to social weal or well-being.* It will now become evident that a true science of economics must necessarily be a moral science, and

any system of wealth production and distribution that is contrary to the principles of justice cannot be a system of social economy at all, but one of extravagance and wastefulness.

Moral conduct is that line of human action, conformity to which tends to promote the life, happiness and well-being of society and its members. And as we have seen, economics deals with the production and distribution *of those material things* that tend to the life, happiness and well-being of society and its members. Hence the same test that is applied to ethical teachings must be applied to the teachings of Political Economy.

Do they tend to the maintenance of a complete social life for the time being? And do they tend to the prolongation of social life to its full extent? To answer yes or no to either of these questions is implicitly to pronounce these teachings true or false.* To say that "moral considerations have nothing to do with economics" is to imply that economic conduct is not necessarily moral conduct. Then it may be *immoral* conduct. And to say that immoral conduct is conducive to the economic production and distribution of wealth is to say that *immoral* conduct tends to promote human happiness, which is contrary to the definition.

Consideration of the conditions favorable to the

* See Data of Ethics. Spencer, chap. 6, § 31.

growth of wealth will further demonstrate the fact that economics is necessarily a moral science, for the growth of wealth is dependent upon maintaining the efficiency of the factors of production, and the degree of efficiency is proportional to the degree of equity shown in distributing the products of industry. In communities where a man's property is insecure, or where the fruits of his toil are taken entirely from him, where labor goes unrewarded, where the land does not receive its due return of nitrogenous matter, where capital is subjected to raids, wealth does not increase, but nations continue in a low state of living. As Spencer has shown, it is where the régime of status is superseded by the régime of contract, where militancy gives place to industry, where men reap and can retain the fruits of their labor, that wealth becomes most abundant, and this condition is most favorable to the growth of morals.

In fact "the recognition of the right of property is originally recognition of the relation between effort and benefit."*

The law of nature which implies the survival of the fittest, "that individuals of most worth shall have the greatest benefits, and inferior individuals shall receive smaller benefits or suffer greater evils," is the law to which a scientific system of economics

* "Justice." Spencer.

must necessarily conform. Now the ethical interpretation of this law is, "that each individual ought to be subject to the effects of his own nature and resulting conduct," * and the economical and ethical teachings are summed up in the Christian declaration, "If any man will not work, neither shall he eat." And this is the law of justice. †

That benefits received should be proportional to merits, is as essential to a sound economic system of wealth distribution as to the development of species.

Although economists professedly ignore the moral aspect of economic questions, and notwithstanding that when considered as a whole the present system is opposed to morality, yet, in one or two of its branches, theoretically speaking, ethics plays an important part. Representation of an exchange transaction, for instance, recognizes the principle of equity. A simple exchange is represented by the sign of equality, thus:

Commodity A = Commodity B.

As J. B. Say remarks: "In all fair traffic, there occurs a mutual exchange of two things, which are worth one the other at the time and place of exchange." Again, the economic importance of the moral qualities is unquestionably great. "The

* Herbert Spencer, "Justice." † Ibid.

moral qualities of the laborers," says J. S. Mill, "are fully as important to the efficiency and worth of their labor, as the intellectual."*

Speaking of other branches, Herbert Spencer writes: "While one of the settled conclusions of political economy is that wages and prices cannot be artificially regulated with advantage, it is also an obvious inference from the law of equal freedom that regulation of them is not morally permissible. On other questions, such as the hurtfulness and tamperings with banking, the futility of endeavours to benefit one occupation at the expense of others, political economy reaches conclusions which ethics independently deduces."

To the peculiar nature of its phenomena and its relation to human life, we may attribute in a grea measure the present chaotic condition of the science.†

For the greater part of the world's history, of which we have knowledge, the commonest method of distributing wealth was for the strong to forcibly seize that belonging to the weak. This was the system that the ancient states of Greece and Rome practised, with such appalling results. As long as slavery existed, as long as the right of might alone was recognized, so long was it impossible to start

* "Principles of Political Economy," Book I, chap. 7.

† Professor Jevons makes the confession that "one hundred years after the first publication of the 'Wealth of Nations,' we find the state of the science to be almost chaotic."

with premises based upon existing conditions with any assurance of establishing a science of economy.

Now it is from the customs and privileges recognized by an age when slavery was legitimized, when brute force was supreme, and mankind in a state of savagery, that orthodox economy takes its assumptions. Take, for instance, the system of land-ownership. "The course of nature," says Spencer, "red in tooth and claw, has been, on a higher plane, the course of civilization. Through 'blood and iron' small clusters of men have been consolidated into larger ones until nations have been formed. This process, carried on everywhere and always by brute force, has resulted in a history of wrongs upon wrongs; savage tribes have been welded together by savage means. We could not if we tried trace back the acts of unscrupulous violence committed during these thousands of years; and could we trace them back we could not rectify their evil results. Land-ownership was established during this process. . . . The remote forefathers of living Englishmen were robbers who stole the lands of men who were themselves robbers, who behaved in like manner to the robbers who preceded them." *

But while we may be powerless to rectify these evil results of the past reign of "blood and iron," t is not necessary to make them the basis of a

* Appendix to "Justice."

science of economy, nor to regard land-ownership as a permanent and indestructible institution. This is the falseness of the present science. It asserts that what ought to be, is; or, as Prof. Cairnes puts it, "political economy is a more or less handsome apology for the present order of things."

Here we see the need of—and what in my judgment is the first requisite before we can hope to establish economics as an exact science—an ideal standard, an absolute economic standard, analogous to that recognized by ethics. Before we can determine whether this or that measure is economically right or wrong, before we can know in what direction our efforts for a better economic system are to be turned, we must have a standard by which we may judge.

The science of ethics recognizes an ideal standard of right conduct which cannot under present conditions be fully realized.* So with other sciences, ideal conceptions or assumptions are considered not only allowable but absolutely essential. Political economy, however, is remarkable by an absence of any analogous conceptions. Attempts to create an ideal standard have been ridiculed and dubbed with the euphemistic term "Utopia"; and yet it is from analogous ideals that other sciences have passed from empiricism to rationalism. Even jurisprudence,

* See chapter on "Absolute Ethics" in Data of Ethics.—Spencer.

that "compilation of the rubrics of legal and official spoliation," has its ultimate ideal standard from which laws have been from time to time referred.

The vast importance of such a standard will be found in solving problems that heretofore have been regarded as insolvable, in explaining phenomena and clearing away the mysteries and ambiguities with which the problems of life have been enveloped, as well as in furnishing a guide for social progress, and for the material and moral welfare and happiness of mankind.

To sum up then. Consideration of the present so-called science of Political Economy demonstrates that its results are not those originally aimed at; in its development its problems have become inverted; it has not arrived at the state of qualitative prevision; it is illogical and ambiguous; and lastly, it is out of harmony with the science of ethics. The cause of this is its fundamental assumptions, which recognize as permanent and as absolutely necessary certain institutions established under the reign of "blood and iron."

No true science of Political Economy is possible based upon injustice. It is necessarily a moral science, hence its principles and premises must be just. In championing private interests economists have entirely missed the goal towards which the science should naturally tend, viz., the well-being of society. Political Economy is not a science for

enriching individuals at the expense of society. To rebuild scientifically, the first requisite is the establishment of a system evolved, not from the reign of "blood and iron," but from fundamental truths derived from experience and observation, and guided by the reasoning faculties. For as Herbert Spencer says: "No scientific establishment of relative truths is possible until the absolute truths have been formulated independently."* Only in this way can economics evolve from empiricism to rationalism, by knowledge of what ought to be, and this presupposes an ideal standard.

Our present system, as I have shown, starts on a false basis by dividing society into classes whose interests are antagonistic. A true system will make society a unit in production and a unit in distribution.

In short, Political Economy should teach mankind how "to produce incessantly, with the least possible amount of labor for each product, the greatest possible variety and quantity of wealth, and to distribute it in such a way as to realize for each individual the greatest amount of physical, moral and intellectual well-being, and for the race the highest perfection and glory."

* Data of Ethics. Chapter on "Absolute Ethics."—Spencer.

Chapter II.

THE FACTORS OF PRODUCTION

ALTHOUGH economists treat production and consumption as separate and independent operations, in reality they are merely two steps in one complete process or cycle. The terms are, in fact, correlative. We cannot well think of the production of wealth without having in mind the end for which it is produced, viz., consumption. Similarly, as consumption is impossible without the means, these terms imply each other. Production is made possible only by consumption, which, as far as humanity is concerned, must necessarily precede production. As the means of human subsistence do not arise spontaneously, self-created, physical exertion is obligatory, and by the law of equivalence the power must be provided before the work can be accomplished. Further, continued physical exertion necessitates continued renewal of physical energy.

Everything with which we are familiar that enters into and goes to maintain human life is strictly limited in quantity. Even the sun, the fountain and source of all earthly life, is limited, and astronomers tell us its heat is being dissipated at an enormously rapid rate; but with the uncontrollable forces of nature economics has nothing to do. It is with the material things which we can control,

which lend themselves to human desires and purposes, and whose usefulness we have power to dissipate or preserve, such as the soil, coal, forests, oil, gas, minerals, fish, game, etc., that this science is concerned. All these things we have power to preserve or waste, and it is the limited amount of such necessaries that makes it essential for humanity to practise economy. But now, economy, as I shall presently show, does not necessarily involve self-denial or abstinence. Far from urging *abstinence*, economy dictates *the use* of wealth; for whilst the quantity of the productive agents is actually limited, we shall find that consumption does not necessitate destruction or exhaustion of these agents; on the contrary, consumption is a necessary part of reproduction, for without it production must cease.

It is *useless* consumption that economy opposes, that is, consumption without reproduction. Nature has shown in many of her operations her marvellous recuperative powers. In the process of evaporation and rain-storm we have a complete system of production and consumption continually going on; similarly with animal and plant life. Plants owe the carbon and hydrogen of which they are largely composed to the carbonic acid and moisture in the air and earth. Now carbonic acid gas is exhaled by animals through the expenditure of carbon contained in the blood and oxygen from the atmosphere, and this carbon is furnished by the

consumption of vegetation. Here we find a continual process of consumption and production, or rather *re*production, being carried on; consumption of vegetation and air, and reproduction of carbon and oxygen in the form of carbonic acid, which is decomposed by the action of the solar rays.

In the formation and combustion of coal and wood we can likewise trace a similar cycle, for the products of combustion emitted to the atmosphere go to form trees and plants which furnish both wood and coal—the latter after possibly many thousands of years' imprisonment beneath the earth's surface. Human life, so far as the consumption of food is concerned, is in all respects similar to the rest of the animal kingdom. The products of consumption of human beings and animals contain the elements necessary to replenish the soil, to enable it to reproduce the means of subsistence;* so that, whilst it is true that the soil is limited, nature discloses a method by which food for the human race may be considered practically limitless. The same is true as regards clothing. Clothing consists of vegetable and animal matter, and the

* "Thus the matter of life, so far as we know it, breaks up in consequence of that continual death which is the condition of its manifesting vitality, into carbonic acid, water and ammonia, which certainly possess no properties but those of ordinary matter. And out of these same forms of ordinary matter, and from none which are simpler, the vegetable world builds up all the protoplasm which keeps the animal world a-going. Plants are the accumulators of the power which animals istribute and disperse."—PROF. HUXLEY, "Physical Basis of Life."

fertilizing agents requisite for reproducing such matter is furnished by the animals themselves; but observe that consumption is here a necessary part of the process, a necessary step in the process of reproduction.

Consumption therefore, instead of being a luxury to be moderately indulged in, is an essential part of reproduction. *Useful consumption and not abstinence is the motto of economics.* But these processes involve human labor; these various forms of matter which serve to produce life-sustaining material have to be brought together, to be transported from place to place. For this work nature depends upon human agency, and here we can see what part human energy takes in the work of production. "If we examine any case of what is called the action of man upon nature," says John Stuart Mill, "we shall find that the powers of nature, or in other words the properties of matter, do all the work, when once objects are put in the right position. This one operation of putting things into fit places for being acted upon by their own internal forces, and by those residing in other natural objects, is all that man does or can do with matter. He only moves one thing to and from another. He moves a seed into the ground and the natural forces of vegetation produce in succession a root, a stem, leaves, flowers and fruit. He moves an axe through a tree and it falls through the natural forces of gravitation, etc. . . . Labor, then, in the physical world, is

always and solely employed in putting objects in motion; the properties of matter, the laws of nature, do all the rest." *

To the average person the terms production and consumption are synonymous with creation and annihilation, and the way in which many economists use them serves to confirm this impression. But in what does the creation of wealth consist? Merely the combining, separating, shaping and moving of matter. We do not create matter in the creation of wealth. Nor do we create force. We can neither create nor annihilate a single atom of matter nor a single unit of force. All we can do is to effect such movement in matter as will cause nature to carry on desirable operations, such as the transformation of one form of energy into another. One of the grandest triumphs of modern science is demonstration of the fact "that forces, unceasingly metamorphosed, are nowhere increased or decreased." If, then, neither force nor matter are consumed, what is meant by consumption? Physically speaking, consumption of wealth consists merely in the metamorphosis of force and matter, in altering and effecting new combinations of elements, in changing the forms of things. Economically speaking, it is the consumption of utility. In reality it is labor—human exertion—that is consumed.†

* "Principles of Political Economy."

† Adam Smith's assertion that "Labor is the ultimate price paid for everything" is in this sense strictly true. For utilities reappear only at the expenditure of labor.

As wealth is in reality the product of consumption, consumption should be carried on towards this end. Practically considered, such consumption is, of course, only attainable to a certain degree. Were we able to unlock nature's secrets and learn by what mysterious alchemy the plants take the substances—carbonic acid, water and ammonia—to form protoplasm; if we knew how to crystallize carbon into the diamond; if we could collect all the atoms dissipated in consumption; if we could repeat exactly all of nature's processes, practice might be made to conform to theory, and our ideal economic standard might be realized.

Now although in very many instances we have not yet discovered nature's secrets, science has taught us sufficient to enable us to provide human life incessantly with the commonest necessaries of life,—food, clothing and shelter. With free access to the soil, with a scientific system of cultivation, with a proper return to the land of all the human and animal products of consumption, with a proper use of natural forces, it is quite possible for the human race to exterminate poverty and starvation.

What, then, are the teachings of nature regarding this subject of production and consumption? *That wealth produced should be consumed productively, that it should be a necessary step in the process of reproduction.* Like the phœnix, it should give birth to the means

for its reappearance, and from the ashes of consumption new wealth should spring. This is the province of invention and discovery—to show how, from the dry bones, to reproduce life—to reproduce wealth from the products of consumption. In this way the means of subsistence become practically limitless. Instead, then, of regarding nature as niggardly, and her resources as limited, we must see that conformity to, and knowledge of her laws furnishes us with never-ending supplies.

We have seen that wealth consumed productively means that its equivalent in labor must be furnished. Here we find, as shewn in the introduction, economics pointing in the same direction as ethics. To eat the bread of idleness is as much opposed to a scientific system of economy as it is contrary to morality; likewise the duty of finding useful employment, of cultivating industrious habits is as much a socially economic necessity as it is a moral duty.

Nature warns society against perpetuating a system that permits a large class to consume wealth without contributing to reproduction. Prof. Cairnes has not failed to see this. He says: "A formidable obstacle to economic laws is a body of rich non-producers. It is important on moral, no less than economic grounds, to insist upon this, that no public benefit of any kind arises from the existence of an idle rich class."

We have already considered several processes

in the economy of nature, and hence we may safely consider this as an economic standard to which the laws of distribution should conform.

A perfect economic cycle involves, therefore, two operations, consumption and reproduction. Starting with a limited quantity of wealth, our aim must be to utilize this wealth in such a way as to not only reproduce it, but if possible increase it, for wealth is capable of enormous increase. *Productive labor always produces a surplus; that is, wealth produced by labor is more than sufficient to replenish the energy consumed in production.* Were this not so, human life would have ceased long since, for labor has had to support not only itself, but a vast army of non-producers.

Chapter III.
WEALTH

THE maintenance of human life may be said to depend wholly upon human exertion. The earth, from which man draws his subsistence, furnishes only the raw materials which, though containing the necessary elements of life, are not in a form suitable for consumption. The harvests of wheat, of oats, of potatoes, the various forms of animal and vegetable life which he consumes, are not the spontaneous offerings of nature. Man must dig, plough, sow, plant, prune and reap continuously, in order that he and his species may live; and this labor is a perpetual legacy entailed upon mankind. So long as man labors, and so long only, can he maintain his right to life. A few days' cessation from toil would suffice to destroy the world's inhabitants. Although by means of machinery, labor's hardships are being continually lessened, no discovery has yet been made by which labor can be wholly dispensed with. From a condition where his entire physical powers were employed in obtaining subsistence, man has gradually raised himself to a point where a portion of society is able to produce sufficient to support, not only themselves, but a large and constantly increasing number of non-producers. In place of labor's produce being barely sufficient for its own support, it now produces a large and increasing

surplus. Nevertheless, the laws of nature prevent us from either hoping or expecting that the need for toil will absolutely cease, for the productions of men are destined to perish. Whether it be his food, wearing apparel, works of art, machines or buildings, all are doomed to decay, disintegration and final destruction. From the moment of their birth their dissolution sets in.

This law of dissolution has therefore entailed upon the human race a perpetual condition of labor. Labor is the supreme condition of life. The original factors in production are man and nature—nature comprising all that exists outside of man, such as land, water, air, sunshine, natural forces, etc. From the co-operation of these two original agents arise all that we eat, drink, wear, use, consume and enjoy. These products of man and nature that go to satisfy wants are termed commodities or wealth, a correct definition of which has been the subject of considerable dispute. The importance of a right conception of wealth cannot be overestimated, since its economic production and equitable distribution is the subject matter of political economy, and without a proper conception the whole science becomes perverted. Wealth is the subject-matter of exchange. It is that which the entire human race is constantly pursuing. It is that which shapes and directs the activities of mankind; it determines the destinies of nations. Consider what this means.

By placing human beings in the same category as commodities, their pursuit and capture was for ages regarded as a legitimate form of wealth production. By making labor a commodity, slavery in a far more extensive form has been established.* In the 12th century, conspicuous for its professions of piety, some very peculiar things were included under this term. A contemporary French writer enumerates among articles of merchandise found in the market of Landit, besides shoes, clothing, agricultural implements, etc., "femmes folles de leurs corps."

It was the prevalence of false ideas of wealth that brought about the ruin of Spain, and was the cause of endless destructive wars during the 16th, 17th and 18th centuries. With the incalculable evils that the mercantile theory created, which made gold and silver the incarnation of wealth, economists have already familiarized us. In defining the term,

* "Rome abolished slavery, America abolished it and we did it, but only the words were abolished, not the thing. Slavery means, the freeing themselves, by some, of the necessity of labor, for the satisfaction of their needs and the throwing of this labor upon others by means of physical force; and where there is a man who does not labor because another is compelled to work for him, there slavery is. And where, as in all European societies, men by force exploit the labor of thousands of men and regard it as their prerogative; while the latter submit to force and regard it as their duty, there we have slavery in terrible proportions. Slavery exists. Our moujiks have long known that with the rouble it is possible to deal more painful blows than with the stick; only the political economists cannot see it."—"Essay on Money," by Count Leo Tolstoi.

writers seem to have labored under considerable difficulty, judging from their writings. "To be wealthy," says Mill, "is to have a large stock of useful articles." Water is an indispensably useful article. One may acquire an inexhaustible stock of it without adding one iota to his wealth. This definition is evidently indefinite. "Wealth," says Adam Smith, "consists not in the inconsumable riches of money, but in the consumable goods annually reproduced by the labor of society." A much more comprehensive definition, but still incomplete. "To create objects which have any kind of utility, is to create wealth," says Say. A definition requiring another, viz., that of utility, which is given as follows: "To this inherent fitness or capacity of certain things to satisfy the various wants of mankind, I shall take leave to affix the name of Utility." John Ruskin, not a professional economist, but a true philosopher, says, "There is no wealth but life. Life, including all its powers of love, of joy, and of admiration. That country is the richest which nourishes the greatest number of noble and happy human beings." Beautiful as this definition is, it does not answer to the description of that which is the subject of exchanges. It is, rather, a description of the end to which the use of wealth should tend. Life is not, economically speaking, wealth, but wealth is that which supports and nourishes life.

The definition which finds most favor with economists, and the one generally employed, is that which has "power in exchange," or "power in purchasing." The ancient, as well as modern writers, made exchangeability the sole test of wealth. "For that," says Ulpian, "is wealth which can be bought and sold." And John Stuart Mill says, "Everything, therefore, forms a part of wealth which has a power of purchasing." The sense of making exchangeability the test is apparent. Human life requires for its maintenance and happiness a variety of products, such as food, clothing, shelter, etc., and in order to maintain life a man must acquire these necessaries, and to acquire them he must produce them directly himself or procure them from others. Under economic conditions labor becomes specialized, and each man is compelled to devote himself solely to the production of but one commodity or a special class of commodities. This specialization or division of labor has been one of the greatest factors in the creation of surplus wealth of modern times. Such a division of labor is a system of co-operation by which a producer produces not only for himself, but for other members of society, just as they produce for him. Such a system necessitates, therefore, a plan of distribution or exchange whereby everyone may obtain some of the various products of others in exchange for his own. In order to support himself a man's produce

must be exchangeable, *i.e.* acceptable to others whose produce he needs. Exchangeability is, therefore, a sine quâ non of wealth, for it is a contradiction in terms to say that a man is possessed of wealth and not the means for supporting life or procuring subsistence. The possessor of gold or gems would be as poor as a beggar without the power of exchanging them.

Wealth, however, has usually been defined and treated from the individual rather than the social point of view, to the confusion and detriment of the science. What under our present inequitable conditions is wealth to the individual, is not necessarily wealth to society. Bonds, taxes, mortgages and judgment notes are a source of wealth to thousands, but not to society. They are rather a source of what Ruskin calls "Illth," in contradistinction to wealth. Lotteries have afforded immense revenues to individuals, but none to the world at large. Exchangeability is, therefore, not the sole test of social wealth, although it is, commercially speaking, of individual wealth.* Under the slave system

* No writer has done so much to expose the weakness of this definition of wealth, and the gross absurdities to which it may logically lead, as Macleod, although this exposure is evidently unperceived by him. He actually shows that by this definition, debts—mere promises-to-pay, rights of action-at-law,—form part of a nation's wealth. Whence it follows that successful blackmailing which results in "promises-to-pay," is a form of wealth production, and those laws that create taxation, and so create rights of action by the State against its citizens, create wealth. And since the science of economics is to guide

human beings were made exchangeable, and constituted a large portion of the wealth of their owners. Did the Emancipation Act destroy this wealth? Yes, so far as their owners were concerned; no, as regards the nation. On the contrary, society was admittedly the gainer.† Here, then, we find a destruction of private wealth attended by society's gain. Again, a definition that includes the factors with their products, is clearly unscientific. This is what the definition of mere exchangeability does. It includes both man and land, the two prime agents of production. To classify man as wealth, is to

mankind in the production and exchange of wealth, blackmailing and taxation should, from the economic point of view, be encouraged!! See his "Theory of Credit," Vol. I, chap. 1, especially where he endeavours to prove that wealth can be produced from nothing!! (page 50.)

† It is generally conceded that the abolition of slavery has greatly benefited the South by compelling the white population to personally engage in production and in labor that formerly was left to the colored race. Slavery is not and cannot be an economic system of wealth production for any society, for it keeps out of production the most intelligent, and places industry in the hands of those who have no interest in it,—who labor not to improve the method of production, but from compulsion. At the same time it can scarcely be doubted that by abolishing personal slavery, and establishing the wage system, a large portion of the laboring people are in a worse condition than they would be as actual slaves. By replacing in the category of wealth persons with their labor, capitalists achieve all they want without the expense and responsibility that slavery involves. When men's persons are owned, their well-being, health and strength are a matter of solicitude on the part of their owners. Not so under wage slavery. It is only their labor that counts. If their labor is poor by reason of sickness or ill health it makes no difference to their employer. He pays only for what he gets and can replace the sick with healthy men at any time. Count Tolstoi, comparing the present condition of the Russian peasants

degrade him to the level of his works, and such a system ends by making him their slave. The buying and selling of labor is traffic in human beings. It is wealth, or, as it is most generally termed, capital, that exploits labor; in other words, since capital is the product of labor, man's works have become his master. He is bought and sold by his own productions. This classification has, in fact, inverted the order of things. Wealth, like the Sabbath, is made for man. "Wealth consists of consumable things," says Smith. Man is the consumer, not the thing consumed, yet we find capital employing labor, instead of labor employing capital. Again, to categorize land as wealth is likewise unscientific, for wealth consists of definite quantities of things possessing definite qualities, the result of definite human exertions. But land, comprising as it does the soil and all beneath

with their condition of serfdom, says: "Before the serfs were emancipated, I could force Vanka to do any kind of a job; and if Vanka refused I sent him to the local judge, who whipped him till he became tractable. At the same time, if I forced Vanka to overwork himself, if I did not give him land and food, the matter was reported to the authorities, and I had to answer the charge. Now the people are free; but I can force Vanka and Petrushka and Sidorka to do any kind of a job for me, and if one refuses, I give him no money to pay his taxes, and they whip him till he submits; moreover, I can force Germans, Frenchmen, Chinese to work for me, punishing them for disobedience by withholding the money which they need to lease land or buy bread; if I force them to work without food, above their strength, if I kill them with work, nobody will say a word to me; and if, in addition, I am well read in politico-economic books, I may be firmly assured that all men are free, and that money does not conduce to slavery!"—"Essay on Money," TOLSTOI.

it, is an indefinite, indeterminable quantity of matter of unknown qualities. It is a factor of indeterminable power. Land in its totality comprises the earth; but the earth stands in no exchange relation to any product. In other words, land is not an economic quantity, and therefore it cannot, scientifically speaking, form a part of wealth. "Land is the mother and labor the father of wealth," says Rodbertus. Other considerations shew, too, the impropriety of classifying the factors in production with the products themselves. Wealth is created for use and consumption, and the existence of society depends upon its continued and incessant production and consumption. It is naturally and inevitably perishable. It is born to die. Reproduction can only continue so long as the factors are operative, hence the safety of society and of the entire human race depends upon keeping them at all times in a condition free and fit for use. To class them with wealth is to class them with consumable things, and with things capable of being destroyed, reproduced or substituted by other things. Whilst man reproduces his species, land cannot be increased beyond the boundaries of the globe. Being incapable of destruction and increase, and not a product of labor, land is not, strictly speaking, a part of wealth.

By classifying the agents of production with produce, they become the subjects of exchange, and, therefore, of private property. The right of private

property is the right to use and to prevent others from using. The Roman law defined property as the right to use and abuse one's own, within the limits of the law: "*jus utendi et abutendi re sua, quatenus juris ratio patitur.*" The power to withhold or limit one of the factors of production from society by individuals, is a continual menace and danger to its stability. It permits the individual to divert land to uses opposed to social welfare. Under such a system future production is an uncertain quantity, since the extent of the agents devoted to production depends upon the caprice or pleasure of individuals, and by limiting the amount of productive land the number of human producers becomes also limited.

It should also be noticed that land, being as necessary an agent as man, there is no good economical reason why, if one is properly the subject of exchange, the other should not be. If as Mill says, "Moral considerations have nothing to do with political economy," man is as properly an article of merchandise as land. Slavery is quite as justifiable as private ownership of the soil. *Wealth, then, as we saw in a previous chapter, consists of those things of human production, the use of which tend to social weal.* It is a contradiction in terms to classify that as economic wealth which tends to society's destruction. Exchangeability does not determine this. Hence the need of a definition of wealth in its absolute or positive sense—in terms

of social welfare. That is the highest form of wealth, the use of which fulfils, to the highest degree, the end for which it is created, viz., the prosperity and happiness of society. These definitions exclude both labor and land from the category of wealth.

It is impossible to specify every commodity that answers to the above definition. Human experience alone can determine, in many instances, what is beneficial to society and what is not. This, however, is no discredit to the definition, for the object of the science is to act as a guide, and furnish a standard, by following which society will grow happier and more prosperous, until the economic goal of civilization—viz., the abolition of poverty—shall have been achieved.

The mere transference of wealth from the pocket of one individual to that of another, for instance, is not wealth-production. Hence gambling, pocket-picking and taxation are not systems for creating wealth. So far I have endeavored to show the need of a definition of wealth that harmonizes at all times with what must rightly be considered the true aim of the science, viz., human well-being.

Having determined what wealth is, in its original and true meaning, we must now discuss it from the standpoint of exchange. The branch of political economy known as the science of exchange deals solely with quantities, and we shall

find that the terms it employs are all quantitative terms; hence it becomes, strictly speaking, a mathematical science. In practice, exchangeability is made the sole test of wealth. This excludes all things which nature provides in abundance, and which require no human effort to obtain, such as air, sunshine, water, etc. The term commodities comprises all those things which are properly classed as wealth, a single one or unit of which is a commodity. A commodity presents itself as a definite quantity of something possessing definite qualities. If it be a material thing it is so many pounds, tons, gallons, yards, or bushels of a substance. It is a measurable thing. The qualities of things are primarily what make them desirable by administering to our comforts; such as the strength of iron, conductivity of copper, transparency of glass, combustibility of coal, etc. It is the quality of a thing that makes it useful. Now all commodities are useful things, but all useful things are not exchangeable, hence all useful things are not commodities. In this sense, therefore, utility alone, *i.e.* ability or capacity to satisfy certain wants, does not make a commodity exchangeable. A product must first be useful to be exchangeable, but something else is necessary to ensure its exchangeability. This something else, we shall hereafter see, is scarcity or limitation of supply, as compared with the demand, whether

limited by nature or artificially. Since the qualities of things are primarily what make them useful, utility is principally confined to the qualitative aspect of things. It is true that when supplied in excessive or minute quantities, certain things which would otherwise be useful, become useless, still our choice of a thing is determined first by its quality. The names by which commodities are known designate their qualities. Thus gold, wheat, wine, wool, are terms that at once convey to us qualitative ideas, and therefore utilities. In speaking of commodities in a general way, we distinguish between them by such qualitative names as above. In speaking of exchangeable commodities, however, we always define them quantitatively, such as *one ton* of iron, *one bushel* of wheat, *one quart* of wine, etc. It is with quantities that the science of exchange deals; it is not concerned with the qualities of things. It is the *exchange relationship* of commodities that economics seeks to investigate, and this relationship we shall find is purely a relation of quantities. Quantities are expressed numerically, and hence are commensurable. I shall shew hereafter, at greater length, that the relationship of exchangeable commodities finds expression in numbers, and numbers only. To sum up then: commodities, when considered objectively, are regarded as definite quantities of things having different qualities; but economics deals with them

only in their quantitative aspect. Considered subjectively, exchangeable commodities are useful things. As useful things they present themselves principally in their qualitative aspects; and as exchangeable things, we deal with them from their quantitative standpoint.

Chapter IV.
EXCHANGE-BARTER

IN the early stages of civilization the satisfaction of human wants is usually accomplished by exchanging one kind of commodity for another without the intervention of any material medium. Thus, corn is exchanged for cattle, wine for silver, and so on. Such transactions are termed barter. For many ages and among many people the only form of exchange was that of barter, pure and simple. Economists tell us how impossible it would be for commerce to exist without the aid of money. Whilst admitting the great assistance that this intervention is, it must not be forgotten that commerce existed long before money was known. It must not be supposed, as some writers assert, that absence of the medium of exchange prevents the possibility of satisfactory exchanges. The fact of an exchange taking place, providing the conditions are free, evidences satisfaction, since this is its natural result. Neither is it true that without a material medium it would be impossible to compute the proportion or ratio in which two different commodities should exchange. This computation of ratios, which will be considered more fully in another chapter, undoubtedly accompanied every act of barter by man in the primitive stage. Products were not exchanged for products without some regard to the cost of production, or difficulty of attainment. Thus we learn that there

are African tribes who compute the value of things by a purely ideal system. "They calculate the values of things in a sort of money of account called 'macutes.' They say one thing is worth ten macutes, another fifteen, another twenty. There is no real thing called a macute, it is a conventional unit for the more convenient comparison of things with one another."* It is unnecessary to shew the inconvenience that would naturally arise in striving to carry on exchange without the intervention of money. Endless examples are given in the various works treating of this subject. A formal expression of a single barter transaction is an equation, as follows:

Commodity A = Commodity B.

The sign of equality is generally used in expressing such a transaction, and means "will exchange for," or "exchanges for." A single exchange involves two dissimilar commodities. It constitutes the exchange of one kind of utility for another. Men do not exchange commodities for like, but for unlike commodities. It also involves two persons, and therefore two distinct desires, or two distinct classes of desires. Further, since the exchange is brought about by the desires of two persons to acquire each what the other possesses, "an exchange evidently requires a

* J. S. Mill, "Political Economy."

concurrence of two minds."* The cause of barter or exchange may, therefore, be defined as reciprocal desires; and since its object is to satisfy these desires, the effect of a complete exchange is reciprocal satisfaction; and as commodities are those products that by their nature or operation satisfy human desires, we may say that *the test of a complete exchange transaction is reciprocal satisfaction.* The importance of this test will be fully realized only when we come to discuss the subject of money.

* Macleod, "Theory of Credit."

Chapter V.
VALUE

"Value is the corner-stone of the Economic edifice."—PROUDHON.

WE have now to consider the most important, ambiguous and perplexing conception with which economics deals, viz., Value. When we remember the warfare that has been waged and the vast amount of literature produced on this subject during the past few years, we read with amusement John Stuart Mill's remark, made nearly fifty years ago, that "Happily there is nothing in the laws of value which remains for the present or any future writer to clear up; the theory of the subject is complete."* So far was this statement from the truth, that since it was written an entirely new economic school has been established, founded upon a wholly different conception from that propounded by Mill, and the school of Adam Smith.

It is true, however, as Mill says, that "Almost every speculation respecting the economical interests of a society implies something of value, and the smallest error on that subject infects with corresponding error all our other conclusions; and anything vague or misty in our conception of it creates confusion and uncertainty in everything else."† This is doubly true when considered in its relation to the

* "Principles of Political Economy."

† Ditto.

money question. In fact, we might almost say that the solution of this question depends upon the interpretation put upon the word "value." This term is so indissolubly bound up with the word "utility" or usefulness, that we cannot treat one without regard to the other.

Every commodity presents itself to us in two ways. When we think of consuming or enjoying a thing, we have regard to its usefulness. When we contemplate disposing of it, we have in mind what we can get in return for it. We may for convenience imagine every commodity possessing two faces. To the consumer it appears as something useful, something to eat, drink, wear or use. To the seller it appears as an object of value, something to exchange. These two different aspects of goods were noticed by Aristotle more than 2000 years ago.

"Of everything which we possess," he says, "there are two uses, both belonging to the thing as such, but not in the same manner; for one is the proper and the other the improper or secondary use of it. For example, the shoe is used for wear, and it is used for exchange; both are uses of the shoe."* The connection or relation between these two aspects has been the ground of contention among economists for years. Adam Smith used the word "value" in the two senses, prefixing the words "use"

* "Politics."

and "exchange" according to its application. He says: "The word value has two different meanings, and sometimes expresses the utility of some particular object, and sometimes the power of purchasing other goods which the possession of that object conveys. The one may be called 'value in use,' the other 'value in exchange.' The things which have the greatest value in use, have frequently little or no value in exchange; and on the contrary, those which have the greatest value in exchange, have frequently little or no value in use. Nothing is more useful than water, but it will purchase scarce anything; scarce anything can be had in exchange for it. A diamond, on the contrary, has scarce any value in use, but a very great quantity of goods may frequently be had in exchange for it."*

The unfortunate application of the same term to these two aspects of commodities, viz., utility and exchange, is entirely responsible for the great confusion and ambiguity into which this question has been brought. The term use-value is becoming obsolete, and the much better word utility or usefulness has taken its place. Smith employs the word utility in a positive sense. Certain things are known to be absolutely essential for the support of life, and are termed the "necessaries" of life. The utilities of such, Smith and his school

* "Wealth of Nations."

regarded as inherent properties. Hence, water was regarded as very useful, and "yet will purchase scarce anything," whilst a diamond, having scarce any value in use, will purchase a very great quantity of goods. Value and usefulness or utility were therefore considered to be independent qualities. Modern economists employ the term utility in a very much wider sense, viz., capacity to satisfy a desire or serve a purpose, irrespective of the nature of the desire or purpose. Thus, Professor Jevons says: "Anything which an individual is found to desire and to labor for, must be assumed to possess for him utility." So Professor Smart writes: "The economic 'want' is not necessarily a rational or healthy want."*

The Austrian school divides value into two parts: subjective or personal value, and objective value. In treating these two divisions, Professor Smart says: "Value in the subjective sense we may call, generally, the importance which a good (commodity) is considered to possess with reference to the well-being of a person. In this sense a good is valuable to me when I consider that my well-being is associated with the possession of it—that it 'avails' for my well-being."

"Value in the objective sense is a relation of power or capacity between one good and another

* Introduction to the "Theory of Value."

good. In this sense a good has value when it has the power of producing—or 'avails' towards—some objective effect. There are, consequently, as many objective values as there are objective effects. Thus while the subjective value of coal to me is the amount of good I get from the fire, its objective value is the temperature which it maintains in the room, or the amount of steam it can raise in the boiler, or the money it brings me if I sell it. This kind of value is very much synonymous with the word 'power' or 'capacity'; it is as common to speak of 'heating power' as of 'heating value.'"*

Economics, however, deals not with the "powers" and "values" of objects which are purely physical, such as the power of steam or the heating value of coal. It is merely exchange values and purchasing powers that the science deals with—that is, the relation of commodities to the wants and desires of men.

According to this same school, value depends upon utility, and it is the "utility on the margin of economic employment," or what is termed its "marginal utility," that determines the value of a commodity. We may put the matter in this way. The ability of commodities to satisfy human wants and appetites creates a desire to possess

* Introduction to the "Theory of Value."

them. This ability to satisfy wants is termed utility or usefulness. The desire for possession prompts men to undergo exertion and make sacrifices, in order to obtain the means for satisfying wants. They are willing to give something, either labor or some commodity, to possess what they want. Now the quantitative relationship which men, in their desire to obtain possession of them, establish among commodities, is termed value.* It is expressed by the ratio of the quantity of one thing that men are willing to exchange for a given quantity of another thing. Thus, both utility and value are merely relations. They are neither qualities nor properties of things. They are not inherent, but merely "accidents of a thing arising from the fact that someone wants it." † And it is the proportion of the number and degree of urgency of these wants for a thing, to its available supply, that determines its value relation. In fact, the difference between the useful and the valuable is a quantitative one. When things are abundant, like air, water, sunshine, etc., no matter how necessary they may be to life, value does not appear. Value arises only where things are limited in quantity, that is, among things where economy is necessary.

Economic value is, therefore, purely a quantitive

* Objective exchange value is all we are now considering.

† Prof. Jevons.

term. "Value," says Le Trosne, "consists in the ratio of exchange, which takes place between such and such a product, between such a quantity of one product and such a quantity of another."

"Hence it is clear," says Macleod, "that value a ratio."

"Value in exchang expresses nothing but a ratio," says Prof. Jevons; "and the term should not be used in any other sense." And again, "Every act of exchange thus presents itself to us in the form of a ratio between two numbers. The word 'value' is commonly used, and if, at current rates, one ton of copper exchanges for ten tons of bar iron, it is usual to say that the value of copper is ten times that of iron, weight for weight."

The foregoing definitions would be ordinarily sufficient to give the reader a perfectly clear idea of what economists mean by this term. But unfortunately its misuse is so general that one finds it difficult, even after acquiring the correct idea, to avoid its misuse. For instance, how difficult it is to refrain from saying, "this thing has value," or "that object possesses great value." And yet it is very evident that if the definitions above given are correct, *it is wrong to speak of anything possessing value.* Prof. Smart says: "But it is almost impossible to use the term without suggesting an inherent property. Value always implies a relation." The economists themselves, after clearly defining the

word, often fall into its popular misuse, with the inevitable result of mixing up themselves and their readers in inextricable confusion. Take Prof. Jevons, for instance, whose definition has already been given. He says: "But value, like utility, is no intrinsic quality of a thing; it is an extrinsic accident or relation. We should never speak of the value of a thing at all without having in our minds the other thing in regard to which it is valued." Further on he says: "Bearing in mind that value is only the ratio of quantities exchanged, it is certain that no substance permanently bears exactly the same value relatively to another commodity," etc. In another place he adds: "A student of economics has no hope of ever being clear and correct in his ideas of the science if he thinks of value as at all a *thing* or an *object*, or even as anything which lies in a thing or object. People are thus led to speak of such a nonentity as *intrinsic value*."

In spite of these clear and comprehensive definitions, he says in another chapter: "Since money has to be exchanged for valuable goods, *it should itself possess value*, and it must therefore *have utility* as the basis of value." How can a thing possess "an extrinsic accident or relationship"? In the same chapter he says: "It might seem that money does not really require to have substantial value." If value "is an extrinsic accident or relation," what is the meaning of the expression that "Money does

not really require to have substantial extrinsic accident or relation"?

Macleod, after defining value as "The ratio in which any two quantities will exchange," says in another part: "The value of anything is always *something* external to itself." But a ratio is the relation of *two* numbers to each other, it involves *two* quantities. Again he says: "Value is an affection of the mind." Is a ratio an "affection of the mind"?

With such a confusion in the use of terms it is not surprising that this subject has been so long submerged in ambiguity. The idea of value in economics arises only in connection with the *quantities* of things. It is expressed in the question, "How much of this commodity must I give for so much of that?" It has, therefore, nothing to do with substances or qualities.*

It has wholly to do with the quantitative relationship

* "If a ton of pig-iron exchanges in a market for an ounce of standard gold, neither the iron *is value* nor the gold, nor is there value *in* the iron nor *in* the gold. The notion of value is concerned only in the fact or circumstance of one exchanging for the other. Thus it is scientifically incorrect to say that the value of the ton of iron *is* the ounce of gold; we thus convert value into a concrete thing; and it is of course equally incorrect to say that the value of the ounce of gold is the ton of iron. The more correct and safe expression is, that the value of the ton of iron is equal to the value of the ounce of gold, or that these values are as one to one."—JEVONS, "Theory of Political Economy."

[It seems to me that this expression is as incorrect as the other. If value is a ratio, what sense is there in saying that "the ratio of the ton of iron is equal to the ratio of the ounce of gold"? The proper expression would be, the value of iron to gold is one ton to one ounce. It must be remembered that we are dealing here entirely with objective exchange value.—AUTHOR.]

of commodities to each other. Since all commodities are exchangeable in certain proportions, in units of their respective measurements, these proportions or ratios are termed values. Value is a term somewhat analogous to distance. It is a relation between two objects. We cannot say a thing *possesses* distance or equality. A single point cannot express, define or measure distance. Two points are essential to convey the idea. The standard unit of length, for instance, is the distance between certain two points or knobs. Similarly, *value is not expressed or defined by a single thing. Two quantities are necessary to express value, just as two lines are required to express an angle.* "Hence," says Macleod, "a single object cannot have economic value. A single object cannot be equal or distant. If an object is said to be equal or distant, we must ask equal to what? Distant from what? So, if any quantity is said to have value, we must ask, value in what? And as it is absurd to speak of absolute or intrinsic equality, or absolute or intrinsic distance, so it is equally absurd to speak of absolute or intrinsic value."

The correct definition of value, as used in the science of exchanges, is, therefore, the exchange relationship existing between two commodities, and it is expressed by the ratio in which the two quantities exchange. There seems to be the need of a word that expresses the idea we desire to convey when we speak of a thing "having" value. Karl Marx suggested the use of the Saxon word "worth."

We frequently say that a thing of value has "worth," or is "worth" so much. The 17th century writers, however, used "worth" for utility.* In this work, I have employed the term "purchasing power" in this sense. A thing has purchasing power when it has power to procure some other thing in exchange. The measure of a commodity's purchasing power is whatever it will exchange for.

* One great difficulty economists labor under is in striving to carry two distinct ideas under one term, viz., ratio and purchasing power. Whether we define value as a relation of *powers* or of *quantities*, it can only be expressed by a *ratio between the two quantities of the commodities exchanged*. Thus, referring to the foot-note on page 66, whilst it is incorrect to say the *value* of one ton of iron is an ounce of gold, it is quite correct to say the *purchasing power* of one ton of iron is an ounce of gold. I have devoted a succeeding chapter to this part of the subject.

Chapter VI.

STANDARD OF VALUE

AFTER the previous definition of value, the reader will be at a loss to comprehend the meaning of the expression "standard of value." Value being a relation between two powers or quantities expressed by a numerical ratio, what possible connection can there be between the words "standard" and "ratio"? What sense is there in the term "standard ratio"? Let us first see what is popularly understood by the term. Professor Jevons says: "It is essential, in the first place, to decide clearly what we mean by a standard unit of value. This must consist of a fixed quantity of some concrete substance, defined by reference to the units of weight or space." Macleod also says: "Those economists who want an invariable standard of value want to discover and fix upon some single commodity by which they can compare the value of other things in all countries and ages."

Edward Atkinson, in a recent article entitled "The Unit of Value in all Trade," says: "The higher law of commerce, laid deep in human nature, has established gold and gold only as the unit or standard of value." And again: "There is a unit of value. It exists without regard to legislation, treaty or agreement. It is gold. To that standard of value the monetary system of every commercial state must be adjusted. A given weight of gold is

the standard of value everywhere, etc."* The so-called standard unit of value of this country† is a certain weight, viz., 23.21997 grains of gold contained in a dollar.

A standard of value, as above defined, is therefore essentially a material substance. Now we have already seen that value is a relation between two powers expressed by a numerical ratio, and is therefore immaterial. We have seen also that value is not the *property* of anything. How, then, can a "fixed quantity of some concrete substance" be a standard or measure of the immaterial? Professor Bowen remarks that "a measure must be homogeneous with the thing measured." In order to be consistent in his advocacy of a standard of value, he is forced to assume that value is a natural property of things. He says: "As that which measures length or capacity must itself possess length and capacity, so that which measures value *must have value* in itself, or *intrinsic value*." It must follow, as the night the day, that since value is an "accidental relationship between two things," and is not the property of any thing, *no single thing can be a standard of value.*

A difference should here be noted between the terms "standard" and "measure." The two are frequently used synonymously. A standard is something fixed, invariable, established by law or custom.

* "Engineering Magazine."

† United States.

A standard of measurement is necessarily a measure, but a measure is not necessarily a standard. There may be many measures, but there can only be one standard. Several writers acknowledge the impossibility of the existence of a standard, but recognize the existence of a measure of value. Thus Macleod says: "But though a standard of value is impossible by the very nature of things, there may be a measure of values."*

What has been said relative to the absurdity of the term "standard of value" applies with equal force against a "measure" of value, if by measure is meant "a fixed quantity of a certain concrete substance." Gold is no more a *measure* of values than it is a *standard* of values. Gold is not homogeneous with that which it is said to measure. The unit weight of gold can function as a measure of other quantities of gold, but it cannot measure iron, or silver or wheat, or any other commodity. Again, Professor Jevons states that the value of gold fell 46 % between 1789 and 1809; that from 1809 to 1849 it appreciated 145 %, while between 1849 and 1874 it fell again at least 20 %. To talk of a standard, subject to such fluctuations, is the height of absurdity. "So palpable is this objection" writes Francis A. Walker, "that some writers, who still cling to the term 'measure of value,' abandon that of a standard

* "Theory of Credit."

of value." And again he says: "Value is a relation and, therefore, cannot be measured, but only expressed or stated." *

Macleod says: "It is as well to explain what these economists mean who are searching for an invariable standard of value. If we had a British yard and any foreign measures of length before us, we could at once perceive the difference between them; and if we were told the measurement of any foreign buildings, however remote in age and country, we could, by a very simple calculation, reduce them to the standard British measurement, and compare them with the size of our own buildings. Those economists who want an invariable standard of value, want to discover and fix upon some single commodity by which they can compare the value of other things in all countries and ages."

"But the least reflection will show that such a standard is absolutely impossible by the very nature of things. . . . If a quantity of gold were placed beside a number of other things, no human sense could discern what their value would be. And the most violent changes in their values might take place in the market without there being any visible sign of such a thing."

"Values are not perceptible by ocular demonstration, but they must be declared by the com-

* "Money, Trade and Industry."

munication of minds. Moreover, it is not possible to ascertain the different values of different quantities of gold obtained in different ages and countries." . . . "The only test of value is an exchange, and unless we can effect an exchange there can be no value. How can we exchange an ounce of gold in the year A.D. 188 with one in the year A.D. 1588, or with one in the year A.D. 1888?"*

Bailey also says: "Value is a relation between *contemporary* commodities, because such only admit of being exchanged with each other; and if we compare the value of a commodity at one time with its value at another, it is only a comparison of the relation in which it stood at these different times, to some other commodity. It is not a comparison of some intrinsic, independent quality at one period with the same quality of another period, but a *comparison of ratios*, or a comparison of the relative quantities in which commodities exchanged for each other at two different epochs. . . . It is impossible for a direct ratio of value to exist between A in 100 and A in 1800, just as it is impossible for the relation of distance to exist between the sun at the former period and the sun at the latter period."†

Macleod further observes: "An invariable standard of value . . . is in itself absolutely

* "Theory of Credit."

† "Theory of Credit," Macleod.

impossible by the very nature of things. Because value is a ratio, and a single quantity cannot be the measure of a ratio. A measure of length or capacity is a single quantity, and measures other single quantities such as different lengths, or bodies of capacity. But value is a ratio, and it is impossible in the nature of things that a single quantity can measure a ratio. It is impossible to say that a : b :: x. It is manifestly absurd to say that 4 : 5 :: 8 : without saying as 8 is to what, just as it is absurd to say that a horse gallops at the rate of twenty miles without saying in what time."

But the question may be asked, "How do you account for the very general employment of the term 'standard of value'?" The answer, Macleod thinks, is to be found in the cause that gave rise to the use of the unfortunate term "intrinsic value," viz., a belief that value is a property or quality of commodities. It is, he says, owing to the general acceptance of the erroneous doctrine that labor is the cause of value, and that the value of a thing is, therefore, the quantity of labor *contained in it*, or exerted in obtaining it. To quote once more: "That unfortunate confusion of ideas between value being the quantity of another commodity which any quantity will purchase, and the quantity of labor embodied as it were in the commodity itself, which is chiefly due to Smith and Ricardo, has not only led to that

mischievous expression 'intrinsic value,' the source of endless confusion in economics, but also to the search for something which very slight reflection would have shewn to be impossible in the very nature of things, viz., an invariable standard of value."* A commodity when considered alone and apart from all others, gives no idea of value, nor can any conception of value arise until it is confronted with another commodity; just as a point in space can convey no idea of distance until a second point is taken.

Now since there can in reality be no such thing as a standard of value, and since a relationship exists among commodities, the question arises in what way is this relationship shewn, defined and expressed? I have said that the arguments used to prove the absurdity of a "standard of value" apply with equal force against the term "measure of value," if by measure is meant "a fixed quantity of a certain concrete substance." No substance can "measure" values. Commodities present themselves to us under two aspects—of quality and quantity. The primary distinction between commodities is a qualitative one, such as the material of which they are composed, iron, wood, wheat, gold, etc., or their shapes or forms, such as tables and chairs; or their physical properties, such as glass, sugar, salt, etc.

Now it is these various properties possessed by

* "Theory of Credit."

commodities that make them useful to mankind and serve to create in the minds of men a desire to possess them. It is physically impossible to bring the *properties* of things to the terms of one denomination. No common denominator for the physical qualities of things has yet been discovered. Whatever the relationship among commodities may be, it is impossible to express it in terms of their qualities. Gold is a qualitative term, designating a certain substance possessing certain characteristics. No relationship of dissimilar commodities can, therefore, be expressed in terms of gold. Values being relations or ratios, are only capable of numerical expression and cannot be expressed by any substance. But commodities are also definite *quantities* of things, and it is with these quantities that the science of economics deals. It treats of the laws which govern the relations of exchangeable *quantities*, and has nothing whatever to do with the *qualities* of things. These furnish matter for a separate and special study entirely apart from economics.

Now, whilst no meaning can be attached to such an expression as silver = gold, by affixing definite quantities before each term the equation becomes perfectly intelligible, thus: 20 oz. silver = 1 oz. gold. The value relationship is expressed by the numbers 20 and 1, thus 1 oz. of gold is to 1 oz. of silver as 20 is to 1.

Or again. Consider the expression 15 bushels of wheat=2 yards of silk. The value relationship is expressed by the numbers 15 and 2, thus 1 bushel of wheat is to 1 yard of silk as 2 is to 15. The only form of expression for the relationship between commodites is that of two or more numbers representing exchangeable quantities in terms of their respective units. It will be noticed that each commodity is designated by three terms: *first*, SUBSTANCES, as wheat, silk; *second*, the UNITS OF QUANTITY, as bushel, yard; and *thirdly*, THE NUMBERS of such units as 15, 2. The only term common to both is that of number. No relationship is expressible in terms of the substance, wheat or silk, nor in such dissimilar units of measurement as bushels and yards. *Therefore the only language in which commodities can give expression to their social relationship is that of numbers.* Suppose, for instance, the following commodities to exchange in these proportions:—

Five pounds butter=three bushels wheat; one coat =twelve bushels wheat; two pairs shoes=one coat; three and one-half gallons whiskey=one pair shoes; one cow=sixty bushels wheat; fifty ounces silver= one cow; and one ounce gold=twenty ounces silver.

We can readily express their relationship numerically by putting them all on an equality.

From the exchange values above given we may conveniently tabulate the commodities as follows:—

Butter in lbs.	Wheat in bush.	Coats.	Whiskey in gals.	Cows.	Silver in oz.	Gold in oz.	Shoes in pairs.
100	60	5	35	1	50	2½	10

The common language through which butter, wheat, coats, shoes, etc., express to us their relationship, is by the numbers 100, 60, 5, etc. The number of pounds of butter of equal exchange power to bushels of wheat, is expressed by these numbers directly, thus, 100 : 60; whilst that of butter in pounds in terms of wheat in bushels is inversely as the numbers, thus 60 : 100, and so on with the remaining commodities. The relation of butter to whiskey as 35 : 100; of cows to gold in ounces as 2½ : 1, etc. *This is the only expression of values possible.*

But it may be argued that since the above commodities are all of equal exchange power, they may all be expressed in terms of one. Thus:—

100 lbs. butter,
60 bush. wheat,
5 coats,
10 pairs shoes, etc.,
} = 2½ oz. gold.

This is said by economists to be bringing commodities to their money form. Gold is thus said to be the *money form* of commodities. In this way it is argued that gold becomes a "measure of value" because all commodities can be equated into definite quantities of gold, and the standard unit of gold is

a standard with which to measure these quantities. John Stuart Mill says: "We may define a measure of value to be something by comparing with which any two other things, we may infer their relation to one another."

But a moment's thought will lead to the conclusion that the exchange relations are expressed not in terms of gold, but in the numbers indicating the quantities that are equally exchangeable. To say that gold is the measure is as sensible as declaring the material boxwood to be the standard or measure of length—because yard-sticks are made of it.

Suppose one horse exchanged for ten ounces of gold, and one mule for one ounce of gold; then the value of horses to mules is as ten to one. It is, therefore, not the gold that expresses the value, but the ratio of the numbers of ounces. In other words, it is the relation of the two quantities irrespective of the substance.* The price of horses in terms of mules can never be determined by bringing a unit of gold near them. It is obvious that the function here served by gold can be served by anything else, providing it is exchangeable. Thus, in place of ten ounces of gold, we might write three hundred bushels of wheat, and in place of

* "But the theory of money has proved that, far from being the measure of values, specie is only their arithmetic, and a conventional arithmetic at that."—"System of Economic Contradictions," PROUDHON.

one ounce gold, thirty bushels. The value of horses to mules is then expressed, not in terms of wheat, but by the numbers 300 : 30.

The use of a commodity such as gold, is convenient merely in arranging other commodities one above another *at a particular time.* But this does not constitute gold a "standard of value." *It is merely a standard commodity at the time at which the arranging occurred.* No commodity can continue to act as a standard commodity for long without disorganizing from time to time the entire range of prices, since no commodity is or can be itself free from fluctuations. Hence a comparison of prices at two different periods gives no indication whether the commodity—in terms of which prices are expressed—has fluctuated, or the commodities whose prices are compared.

The mistake economists make, is in supposing that the commodity which was selected for comparing at a particular time all others, is a perpetual standard at all times and places. What was originally required of a standard commodity was to enable society to express values numerically. Thus, when it was found that commodities would exchange for certain weights of gold, it was extremely easy and convenient to express the relations of commodities, and range them one above another, using the numbers representing weights of gold merely as their arithmetic. But having once accomplished this, gold

became no longer necessary. The language of commodities was created as soon as their relationship was ascertained in terms of the quantities (either by weight or volume) of any one commodity, whether gold, silver, wheat, or what not; and if from that instant prices had been reckoned without retaining the standard commodity for successive comparisons and valuations, we should have had an accurate method by which the variations in the prices of each and every commodity would have been correctly registered, including the variations in the standard commodity itself.

A commodity can only be considered as a standard at one particular instant. Between this hour and the next, a change in its supply or demand may occur, and consequently its relation to all others changes. An illustration will serve to make this clearer. Imagine a number of balloons moving upward and forward, their motions being irregular, so that their relative positions are constantly changing. If we desire to trace the respective movements of each, we must do so from some fixed point on the earth's surface. If we attempt to describe such movements from a moving standpoint—a railroad car for instance—it would be impossible to do so with any degree of accuracy; and if we were in one of the balloons and made this the standard of observation, we should be doing practically what the commercial world is now doing, in tying money to a particular commodity. We should be unable to determine whether our balloon was advancing, or another receding.

It has been thought by many that a fixed standard of exchange power is impossible. Gold having been selected, economists imagined that the evils of a fluctuating currency were reduced to the lowest possible point by adopting that commodity which was least subjected to variations; but the mistake, as I have said, was in supposing it was necessary to have a commodity that should be *per se* at all times a standard.

If gold was taken as the standard commodity on December 31st, 1894, the exchange powers of commodities would all be expressed in numbers which represented so many grains of gold *on that particular day*. No matter how gold might fluctuate thereafter, it could not possibly affect the prices of other commodities. Its own fluctuations would be registered in money based upon such a system.

The question at issue with the advocates of a "standard of value," may be thus stated: "Is value an inherent property of commodities, or is it merely an abstract relation between them and human desires?" If the former, gold may rightly be considered a "standard of value." If it be true—as all economists assert—that value is merely a relation between exchangeable things established by human wants and desires, then it can be expressed only in terms of the abstract, viz., numbers.

To sum up, then, a material standard or measure of values is a physical impossibility. First, because

values are ideal, and can only be expressed in terms of the ideal. Second, because value can only be expressed by *two* numbers representing quantities. A single number or quantity is, therefore, incapable of expressing the relation. Third, value being the exchange relation between commodities, and this relation being a *quantitative* one, values can only be expressed by *numbers*, and not by *substances*.

In spite of the already too-lengthy discussion on the subjects of "standard and measures of values," I must, at the risk of taxing the reader's patience to the utmost, touch once more on a phase of the question which some may be still in doubt over. Recent experience upon the platform convinces me that the fallacy underlying the specie basis is not to be destroyed by a sudden or unexpected assault, nor by an exposure of merely one phase of the question. It must be exposed from all sides in order to destroy it in both root and branch.

In the writings of the most advanced thinkers, I find the statement made again and again, that money is inconceivable unless based upon some commodity selected as a permanent "standard of value," as it is called; and there seems to be a general agreement regarding gold as the "natural standard."

In order to demonstrate the difficulty under which these writers labor, I will repeat an illustration previously given; but before doing so let us

fully comprehend what the money problem is. Economists often fall into an error by supposing a society in which commerce and exchanges are about to commence and where the exchange relations of commodities, being unknown, must be discovered by selecting one commodity and comparing all others with it, *i.e.* "measuring" them by the standard selected. This I have already shewn to be impossible. Exchange relations are not discovered by bringing one thing alongside another. It is the wants and desires of society that establish these relations, and no single commodity can possibly do so.

We must remember that the system of barter existed prior to the use of money, and this invention is to get rid of the difficulties attending barter.

We must suppose that at the time money is introduced, the exchange relations of commodities are already established through the system of barter. The prime function of money is to *express these relations as it finds them* and to intervene merely as a medium of exchange. Suppose, then, we find the following goods exchanging in the proportions named:—

Five quarts milk for one pound butter.

One yard cloth for twenty-five quarts milk.

Two ounces silver for one yard cloth, and so on.

The advocates of a standard assert that these commodities must all be brought to the terms of

the denomination of some one *commodity* in order to ascertain and express their values. On the contrary, I assert that it is physically impossible to bring commodities themselves to terms of any common denomination. It is merely their exchange relations that can be expressed in terms of a common language, and that language is numbers, and numbers only. Standard advocates fall into the error of supposing value to be "possessed by" or to "inhere in" commodities, and imagine that all goods contain various quantities of this thing or substance called "value," of which a given weight of the standard contains a fixed amount; and yet, when defining value, they are careful to speak of it as being only a relation between two quantities or powers. But let us see what the use of a standard commodity achieves. From the relations of the goods given above, we may raise them to an equality with the highest, viz., one yard cloth, thus:

Twenty-five quarts milk = five pounds butter = one yard cloth = two ounces silver.

Now let us select silver as our standard of comparison.

Then we have:—

$$\left.\begin{array}{l}\text{25 quarts Milk}\\ \text{5 pounds Butter}\\ \text{1 yard Cloth}\end{array}\right\} = \text{2 ounces Silver.}$$

If we imagine one ounce silver divided into

100 equal parts, we have the following prices for our commodities:—

$$1 \text{ quart Milk} = \frac{8}{100} \text{ or } 8 \text{ cents.}$$

$$1 \text{ pound Butter} = \frac{40}{100} \text{ or } 40 \text{ cents.}$$

$$1 \text{ yard Cloth} = \frac{200}{100} \text{ or } 200 \text{ cents.}$$

All that we have accomplished by this comparison is to find a common denomination for the exchange relations of these goods; and this we see is a *numerical* expression.

Now the dividing line between ourselves and the advocates of a commodity standard begins at this point. The latter contend that these numbers stand for certain pieces or weights of silver; and hence a certain definite weight of silver or gold may constitute a permanent standard of value or purchasing power. On the other hand, I contend that these numbers represent merely the purchasing powers contained by, or rather *conferred upon* certain weights of silver at the particular time the comparison is made.

Suppose that in place of the silver we substitute a commodity that is not like silver, divisible—say a vase or a painting. The exchange relations will then be expressed as follows:—

$$\left.\begin{array}{l}25 \text{ quarts Milk} \\ 5 \text{ pounds Butter} \\ 1 \text{ yard Cloth}\end{array}\right\} = 1 \text{ Vase}$$

Hence—

$$1 \text{ quart Milk} = \frac{1}{25}\text{th Vase} = \frac{8}{100} = 8 \text{ cents.}$$

$$1 \text{ pound Butter} = \frac{1}{5}\text{th Vase} = \frac{40}{100} = 40 \text{ cents.}$$

$$1 \text{ yard Cloth} = 1 \text{ Vase} = \frac{200}{100} = 200 \text{ cents.}$$

It will surely not be contended that the material of which the vase is made is in any sense a "standard of value," or that these numbers refer to portions of the vase. To attempt to divide it into fragments would destroy its worth; and yet this vase which cannot be divided and which may not even be duplicated has as much to do with expressing values as silver. The fractions $\frac{1}{25}$th and $\frac{1}{5}$th, do not mean fractional portions of the vase, but fractional parts of its exchange or purchasing power.

Neither an ounce of silver nor an ounce of gold contain a "fixed quantity of value." They merely have conferred upon them, by reason of their utilities, powers of purchasing other commodities, but these powers vary continually according as their marginal utilities vary from time to time.

Referring to our former example: Suppose we regard the term dollar as the equivalent of the purchasing power of one ounce of silver at the time this comparison or price list was arranged,

but make it in no wise dependent upon the commodity, silver, thereafter; the dollar becomes an absolutely invariable unit of purchasing power, viz., the equivalent of that exchange power which happened to be attached to an ounce of silver at one particular time and place. And no matter how silver may fluctuate thereafter it cannot affect the purchasing power of this ideal unit—the dollar.

My contention is that the purchasing power of a definite quantity of any commodity, say 25 grains of gold on a given day, say January 1st, 1894, may be taken as equal to the unit of purchasing power, from which to *start* prices, but the purchasing power of this quantity of gold cannot, scientifically speaking, be recognized as the unit in July, 1894, or January, 1895, or in fact at any time thereafter, since definite and invariable powers are not associated with definite weights or quantities of commodities.

Purchasing powers, like values, are abstract relations not concrete magnitudes. They are purely ideal, and vary as our wants and desires regarding all objects of utility vary. To measure our desires for things generally, seems at first sight impossible, yet it is possible to give numerical representation to them by the differences in the quantities of the things we are willing to give for those we desire. A desire for a certain thing at one particular time may be represented by 1, and

for some other thing at the same time by 2, and so on. Thus we may establish a numerical relationship among all commodities, our unit being the desire we had for a given thing at a given instant of time. But the desire is not possessed by the thing itself, nor is the intensity of the desire for the thing the same for all time. The numerical relationship being once established, our monetary system should be such that prices can be affected only by changes in the demand for and supply of commodities themselves, and not by reason of any change in money.

In asserting the necessity for connecting the element of time with any concrete standard that may be chosen as the unit of purchasing power, we are only asserting what everybody recognizes as an essential condition with all standard units of measurement, viz., *invariableness*. The English standard of length, for instance, is the distance between the centres of two gold plugs in a certain bronze bar, the bar being at a particular temperature, viz., 62° F. The one element or condition to which metals are unavoidably exposed which causes variations in their volume, viz., temperature, must be taken at some arbitrarily fixed point. Similarly with purchasing powers. These fluctuate in the course of time from supply and demand, and as we are unable to fix the conditions under which values remain invariable, all we can do is to make our

unit or standard the equivalent of the purchasing power of a certain quantity of some commodity *at a given time* from which to start prices, as previously explained. The introduction of this element of time abolishes the permanent commodity-standard at once, and gives us an invariable ideal unit, in terms of which the fluctuations of all commodities can be registered or expressed with mathematical exactness.

Chapter VII.

PURCHASING POWER

THE terms "value" and "purchasing power" have hitherto been used synonymously, much to the confusion of the science, notwithstanding the fact that they embrace wholly different conceptions. Value is the relationship existing between two exchangeable commodities, and is expressed by a simple ratio of two numbers or quantities. Purchasing power is the power of a commodity in exchange, and is expressed by a *single number* or quantity. Value can be expressed *only* by two numbers; purchasing power is expressed by one. There cannot be an invariable unit of value; there can be an invariable unit of purchasing power. Nothing *possesses* value, but all commodities may be said to have purchasing power. A man's credit is his purchasing power; we do not speak of it as his value.

We may trace an analogy between purchasing power and potential as used in mechanics. A body is said to have potential energy when it is placed above other objects, *i.e.*, it has potential power with regard to any object or point below it. A stone thrown upwards gradually loses its initial energy imparted to it by the force that projected it upwards; but this actual energy is

gradually converted into potential energy, the latter increasing with the loss of the former until the initial energy is transformed wholly into potential, at its highest point. Thus potential energy is advantage of position. Now in the commercial world commodities occupy different relations to each other, relations which are constantly changing. Commodities are continually rising and falling in price, changes which are analogous to change of altitude in mechanics. With every fall there is a loss, and with every rise a gain in purchasing power. Purchasing power, unlike value, is capable of expression in units, which may be any number arbitrarily selected. Value, on the other hand, corresponds to distance, which is expressed by the relative positions of the two bodies.

Unit of Purchasing Power.

Referring to the illustration on page 78, I shewed how the exchange relationship of commodities received definite expression by ratios. These relations are expressed as follows:—

Butter in lbs.	Wheat in bush.	Coats.	Shoes in pairs.	Whiskey in gals.	Cows.	Silver in oz.	Gold in oz.
100	60	5	10	35	1	50	2½

Now in order to find the purchasing power of each of these commodities, it will be convenient

to find their least common multiple, and then range them according to their powers. This multiple is 5250. Dividing this by each number, we obtain the following results :—

Butter in lbs.	Wheat in bush.	Coats.	Shoes in pairs.	Whiskey in gals.	Cows.	Silver in oz.	Gold in oz.
52.5	87.5	1050	525	150	5250	105	2100

These numbers represent the proportion in which the purchasing powers of the above commodities stand to each other, and we may conveniently suppose each number to represent the number of units of purchasing power which is conferred upon each unit of quantity of the different commodities. Thus, supposing one pound of butter to represent 52½ units of purchasing power, then one bushel of wheat will represent 87½ units, one coat 1050 units, one cow 5250 units, and so on. Units thus selected are invariable ; they are expressions of a power which, whilst it fluctuates in each and every commodity in quantity, does not vary in intensity. For instance, if the demand for butter should decrease one-half, its purchasing power might decline to an equal extent. Its purchasing power would probably fall to below 30. But whilst it lost in number of units, the units themselves remain invariable. A unit of this nature is, therefore, an invariable unit and measure of

purchasing power. Now all commodities at any given time and place stand in some definite relation to each other, *i.e.* have certain amounts of purchasing power which are capable of numerical expression similar to the above example. In other words, all commodities are of equal exchange power when taken in certain proportions. The market reports give these exchange relations, and indicate their fluctuations from day to day.

It is only necessary to tabulate commodities as above, *commencing at any given time and place*, and bring the numbers that indicate their exchange relationship to a common multiple.

The following analogy will make this subject clearer. Imagine a number of balloons, A, B, C, and D, at different altitudes, and suppose we wish to trace the variations in their relative positions from time to time. All that we know of their positions is that the distance between A and B is twice that between A and the earth, and that A to C is equal to three times A to B, whilst C to D is twice B to C. How are we to determine their positions? The problem is a very simple one and is analogous to tracing changes in values. Suppose A to the earth represented by x and is unknown. Then A to B = 2x; A to C = 6x; therefore, B to C = 4x, and C to D = 8x. By following the variations in the altitudes of each balloon, in terms of x, we can always determine their relative positions. It

is not necessary to know what x is: so long as we can express distance in powers of x, these relations can always be determined. x may be said to correspond to our ideal unit of purchasing power, and it is not necessary to know the dimensions of this unit in absolute terms. All we desire is to be able to trace the fluctuations in the purchasing powers of commodities in terms of x, either as multiples or fractions.

To avoid any possible misunderstanding, it may be well to point out that the above numbers representing the relative purchasing powers of the commodities enumerated, could have no significance and can convey no meaning outside of the exchange circle in which they are employed. For instance, to say that one coat is worth 1050 units, conveys no idea of the expensiveness of the coat, unless we know the relation of the unit to all other commodities. When, however, we know that 5250 of these units represent the purchasing power of one cow, 105 units one ounce of silver, 2100 units one ounce of gold, and so on, the price of the coat, expressed in these units, becomes intelligible. We have therefore only to apply to these units some distinguishing term, such as dollar, franc, pound, yen or rouble, in order to make the system generally intelligible.

Chapter VIII.
MONEY

"Money, the only power that all mankind falls down before."—BUTLER'S "*Hudibras.*"

WHENEVER we are brought into a discussion of the money question, we are confronted with one great obstacle — a superstition — which has become strongly intrenched in the popular mind, what may be termed the fetichism of gold and silver. So accustomed are we to associate things with their functions, there finally grows in our minds the idea of a personality belonging to the object itself, and we unconsciously ascribe to it human qualities and tendencies. Thus we hear daily the expressions "good money," "bad money," an "honest" and a "dishonest" dollar. Gold is called "cowardly," and is said to "refuse" to circulate, and the very acme of fetichism is contained in the expression "money talks."

It is precisely this superstition which renders the money question so difficult of comprehension by the average man. Accustomed all his life to handle coins which perform the money function, the metal to him is money itself, just as to a mechanic the idea of force is contained in the conception of a steam engine. To him the engine becomes synonymous with the invisible force, instead of the instrument through which force is manifested. To thoroughly grasp the science of money, we must distinguish

between it and the material by which it becomes manifest.

The money question is the practical side of the value question, and it remains to be seen whether the theory of value, as propounded in the foregoing part of this work, admits of practical application or not. In science, theory and practice must always agree, and when this is the case, the results of such practice must be those sought after. The present monetary systems of the world may be briefly described as follows:—

In order to facilitate the exchange of goods, one commodity is selected as a standard to which all others are compared, and the "values" of all are expressed in terms of this one. Gold is the standard commodity selected by the civilized world, and is the basis of all or nearly all the world's monetary systems. Money is therefore defined as a commodity, and is said to perform the functions of (1) a medium of exchange; (2) a common measure of value; (3) a standard of value; and (4) a standard of deferred payments. The advantage of money as thus constituted, is stated to consist in avoiding the inconveniences of barter, viz., "the improbability of coincidence between persons wanting and persons possessing; the complexity of exchanges, which are not made in terms of one single substance; and the need of some means of dividing and distributing valuable articles." Money is said to overcome

* Prof. Jevons.

these difficulties by acting as a common denominator of values.

Innumerable discussions have taken place regarding the true nature and functions of money, but nearly all our modern economists agree in regarding money as a commodity. Now I have already shewn that there is no such thing as a material standard or measure of values, that the very terms involve an absurdity, and their existence is impossible by the very nature of things. Money is, therefore, not a standard nor a common measure of values, and it will be unnecessary to deal further with these two so-called functions. We will now investigate the true origin, nature and functions of money, and then endeavour to solve the problem as to whether a commodity can perform the functions of money. The origin of money can be traced to the inconveniences which the system of barter gave rise to. These inconveniences arose from the very nature of things exchanged, viz., a want of divisibility. Were all commodities easily and alike capable of division and sub-division, they might be exchanged in any and every proportion. The difficulty of making all commodities proportionally exchangeable gave rise to the need of a means of reckoning and expressing these exchange proportions.

Thus, if a horse dealer desired fifty bushels of corn, and the corn merchant wanted a horse, an attempt to barter a horse for corn would be made. The dealer considers, and the merchant agrees that

the horse is worth 200 bushels. Now, since it is impossible to divide a horse and still utilize his services, if the exchange takes place the horse dealer has 150 bushels of corn that he has no use for. If he takes but fifty bushels, the merchant owes him 150 bushels or its equivalent.

There at once arises a debt, and from this inequality in exchange originates the need for money. Now we have already seen, in discussing the subject of value, that the proportional relation in which commodities exchange with each other is termed value. Hence, a system that is to avoid the inconveniences attending barter must be to *express values*. I have shewn that values are only capable of numerical expression. *A monetary system must, therefore, be a numerical system.*

Let us, in thought, transport ourselves to an age and place where material money is unknown. The business and commerce of such a place will consist of the direct exchange of various products necessary to life and happiness. A farmer will send his corn to market and barter it in various amounts for the different things he may need. So the sheep-grazier will barter his sheep with the vintner for wine, the weaver his cloth with the hunter for game, and so on.

But certain inconveniences arise. Occasionally the farmer, who needs wine, finds the vintner is not in need of corn, and as corn is all he has to pay with he is at loss to know what to do. The farm-laborer

who engages with the farmer on the basis of receiving a certain percentage of the crops for his labor, finds himself in need of boots, clothes and various other things. He cannot always exchange his corn directly for what he needs. The physician who has served the sheep-grazier does not care for mutton, hence sheep are not desirable to him. How will the sheep-grazier repay the physician? Again, the carpenter, who has built a house for the vintner, finds that if he accepts wine in return for the house he will have enough to last him 200 years, should he live so long. As he cannot live wholly on wine, he does not wish to accept payment solely in that commodity.

Here the necessity arises for some plan or system by which the industry and commerce of the community can be carried on without these difficulties arising. The community is in need of an inventor, with brains enough to devise a means for overcoming these inconveniences. Two plans may be suggested. The one which has been most generally adopted we will describe first. "In process of time," says Macleod,* "all nations hit upon this plan: they fixed upon a certain material substance which they agreed to make always exchangeable among themselves, to represent the amount of debt."

The substance selected was one which Professor

* "Theory of Credit."

Jevons says, "seems designed by nature for the very purpose," viz., gold. "Since it can be melted, divided and sub-divided, is homogeneous, portable, cognizable, indestructible and stable, it appears the most appropriate substance for this purpose."

The various merchants, farmers, sheep-raisers, etc., would, therefore, have to go to the goldsmith and arrange with him as best they may for a supply of gold pieces. Having first agreed among themselves to accept these pieces in exchange for their several products in certain ratios, the business of the community would at once proceed, and obstacles previously encountered would be removed —providing always that these traders had power at all times to command gold with their commodities. Failure on the part of the goldsmith to part with any more pieces, would simply throw the community back into its original barbaric state. Were the nventor of such a scheme a nineteenth century operator, he would, prior to propounding such a plan for facilitating exchange, proceed to get control of all the gold and gold mines of the community. He would then persuade the government of the community to pass a law making gold the legal tender, and fixing as an arbitrary standard of value a certain weight of gold. Having accomplished these things, he could consider himself as rich "beyond the dreams of avarice." Having safely established the system for facilitating exchange, and assisted the

community, by loaning them gold, he need only close his mines and hoard his treasure, in order to shortly have a substantial portion of the wealth of our imaginary society fall under his control. By controlling the medium of exchange, he would control the entire commerce of the community.

Now, whilst the use of this substance, gold, would (so long as the gold merchants permitted it) facilitate exchange and avoid the complications before pictured, the system would still be a system of barter. The exchange of corn for gold is as much barter as if exchanged for wine or anything else. It is the exchange of one product directly for another. There is here no appearance or conception of money. Let us now suppose that gold and silver and precious metals were unknown to our imaginary community. The inventor hits upon this plan. He first finds the proportion in which all the various products stand to each other. Thus, he finds that the farmer and vintner exchange one bushel of corn for one gallon of wine; the sheep-raiser and farmer, one sheep for twenty bushels of corn; the weaver and vintner, one yard of cloth for two gallons of wine, and so on. He then tabulates all commodities in their exchange relations, thus:—

Bushels of Corn	Gallons of Wine	Number of Sheep	Yards of Cloth
20	20	1	10

Arranging all commodities from the least to the

most valuable, their exchange relations are thus expressed by their respective quantities. By dividing their least common multiple by each number respectively, we find their exchange relation. Thus:—

20					Corn	Wine	Sheep	Cloth
20	20	1	10	=	1	1	20	2
Corn	Wine	Sheep	Cloth					

By taking the integer one as a unit, commodities can be ranged one above another, thus: One bushel of corn would be equivalent to one unit of purchasing power, and one sheep to twenty units, and so on, at this particular time and place.

Taking this unit to represent a unit of purchasing power, our inventor would suggest the printing on pieces of durable paper of convenient size, single units and multiples of units representing such purchasing power. Such units may be termed macutes, francs, dollars, or pounds.

These notes might be issued by a bank established by the community or by its leading merchants. This bank would be a mutual co-operative association for the purpose of exchanging individual for the bank's credit, a small charge being made for insurance and running expenses. Thus, in the case of the farmer and his assistant, instead of giving him, say ten per cent. of his crops, or perhaps one thousand bushels of corn for his services, he would, by consulting his table or market report (which would be published daily

as now, giving the fluctuations in the various commodities), find corn marked, say ten units of purchasing power per bushel, and having exchanged his personal credit for that of the mutual bank he will then pay him notes to the extent of ten thousand units. Similarly the sheep-raiser would give the physican notes to the extent of thirty or forty units, and so on. If the community be a small one and each member agrees to accept the notes of another, such notes can be issued individually; otherwise the mutual bank of the community collectively would issue them. Here we have the true and scientific form of money. In the first case, as we saw, money does not exist. It is merely the bartering of all commodities for one particular commodity. In the last example, the medium of exchange is not a commodity. The exchange of corn for so many arbitrary units expressed on pieces of paper, is not the exchange of one commodity for another, but for a right or power to demand services or commodities at any future time. The only requisite that such notes need to constitute money is, that the members of the community shall agree to accept them in exchange for products.

Consider, for instance, the transaction between the farmer and the farm-laborer. Entitled to ten per cent. of the crops, the latter finds himself unable to utilize the produce in the way he desires. The farmer owes him, as we saw, one thousand

bushels of corn; but the laborer wants shoes, clothes, hats, and a variety of commodities. Now suppose the farmer pays him the price of the corn in gold. He is as badly off as if he were paid in corn, unless the gold be more generally acceptable than the corn, since it is not the gold he wants, but what it will procure. The payment of the notes, or, in other words, the money, is the acknowledgment on the part of the farmer of a debt equivalent to one thousand bushels of corn at that particular time and place. The notes are orders upon any and every member of the community to render this man goods and services equivalent to the one thousand bushels of corn, and if the notes be issued by the farmer, the community looks to him to redeem them in corn. If issued by the community collectively, they may be redeemable by the government of the community by taxation, or remain in circulation. The payment of the notes or money is not an exchange of two products, such as in the case of a gold medium. The farm-laborer has exchanged his product, viz., services, for an order or right to demand an equivalent of one thousand bushels of corn. Being socially recognized and acceptable, and expressed in terms in which the purchasing power of all commodities are commensurable, this paper serves as a means of expressing values, and is therefore, strictly and scientifically speaking, money.

"The true nature of money is now apparent. It is simply a right or title to demand some product or service from someone else. Now when a person accepts money in exchange for products or services rendered, he can neither drink it nor clothe himself with it; nor is it any species of economic satisfaction for the service he has done. He only agrees to accept it for the service he has rendered because he believes, or has confidence, that he can purchase some satisfaction which he does want at any time he pleases. Money is therefore what is termed credit." *

The term "medium of exchange," would indicate a distinction in the very nature of that which serves as a medium and that of the things exchanged. The transaction known as selling is not a barter nor a complete exchange transaction.

It is not the exchange of one product for another; it is what is termed a demi-exchange. The exchange is but half completed; it is only complete when we have purchased what we need with the money. Then, and only then, is the exchange completed, and reciprocal satisfaction effected.

"A sale of goods for money," † says Francis A. Walker, "is only half a transaction; the other half takes place when the money itself is sold for the

* Macleod, "Theory of Credit."

† "Money and Trade."

goods." The medium of exchange must therefore not be regarded as a commodity, nor must it be subjected to the same influences.

It must be absolutely neutral, since it must express accurately the exchange relations of commodities to each other.

The idea of money originates in the desire to effect an exchange, when two commodities of *unequal exchange power* confront each other. Thus, referring to our former illustration: supposing the vintner desired of the farmer 1000 bushels of corn, and agreed to exchange at the ratio of 1000 bushels of corn = 1000 gallons of wine, but the farmer needs only one gallon of wine, and cannot use more. The vintner, therefore, would owe the farmer the equivalent of 999 bushels of corn, viz., 999 gallons of wine, in such a transaction. The farmer requires substantial evidence of this debt on the part of the vintner to him, and in such a form that he can transfer it to others for the things that he desires to procure, and which they possess. In order to make such evidence available, it must be socially recognized and generally acceptable. Suppose under the first system of exchange the vintner pays the farmer the difference in gold. In the absence of any legal tender act, or any governmental interference, has the vintner discharged the debt? This would depend upon whether the farmer accepted the gold in the final discharge of

the debt, and his acceptance would depend upon whether society would do the same. He would accept it, therefore, only as a medium, a means of providing what he needed. But now, observe the difference in the result between a commodity medium and true money, such as I have described. In the use of gold, such a medium is recognized to be the equivalent *per se* of the commodities purchased. It is given in *final discharge* of the debt or obligation. Now, no one believes that gold, functioning as a means of exchange, is of any special benefit; it yields no comfort or happiness outside of its acquired money functions; it gives no economic satisfaction; it is not wanted. Hence, the gold-medium *as gold* is simply useless. It is of no greater utility than the paper upon which the number of units of purchasing power is engraved. It does nothing more than any material which performs the functions of money. Suppose the vintner pays the difference in a note representing his debt, is the debt finally discharged? *No, not until the note is redeemed in goods.* He owes the equivalent of 999 bushels of corn, that is, 999 gallons of wine, and if society agrees to accept his note, it looks to him for its redemption. In this case society would get 999 gallons of wine, a useful and desirable article, instead of several pieces of gold, which, as money, are of no more use than paper. The use of metallic

or commodity-money, therefore, deprives society of a number of useful commodities, and substitutes that which is, comparatively speaking, useless. We have, therefore, this principle: *The use of commodity-money entails a loss upon society equal to the cost of producing the amount of the commodity so used.* By placing money on a scientific basis and making it redeemable in *all* commodities, instead of in *one*, and that one a comparatively useless one, the gain to the world would be incalculable. When I speak of gold as comparatively useless, I mean that if it were suddenly and completely dissociated with money, it would become almost a drug upon the market, and fall in price as silver has recently done. Although economists admit that the seller has not received satisfaction until he has exchanged the money for some desirable products, still they regard the transaction as complete, and the debt finally discharged, as soon as the money is paid; hence, there is an economic exchange without reciprocal satisfaction, which is scientifically impossible. Now we saw when treating of barter that the test of a complete exchange was reciprocal satisfaction. Both parties to the transaction must receive satisfaction, by an exchange of desirable commodities, utilities. The exchange of a commodity for commodity-money is an absurdity. It asserts discharge of the obligations of the one to the other, with but one satisfaction.

It declares the transaction to be complete when it is incomplete. The exchange is said to be complete without accomplishing the natural results of an exchange. As a final discharge of obligation, the commodity takes precedence, and declares the exchange transaction completed. As money it asserts itself as being the *medium* of exchange; not the thing desired but merely its representative, a means to an end, the middle thing, the mechanism of exchange; hence, the contradiction. Therefore we are compelled to barter our goods for one particular commodity, which we do not want, in order to acquire the means by which we can ultimately acquire the commodity we do want. Money is said to express values, and is also called a common denominator of values. Thus, Francis Walker says: * "Value, economists are pretty much agreed, is a relation, and for the purpose of the present discussion we may so take it. But surely a relation, a ratio, cannot be measured! You do not measure the relation of a mile to a furlong; you express it as 8:1. You use a common language for the two quantities. You take a common term or denominator for the two distances and thus set them in immediate comparison with each other. Were you, for example, to say that a mile is 63,360 inches, and a furlong one twenty-fourth part of a league, the untechnical

* "Money, Trade and Industry."

and unskilled hearer would form no idea of the relation between a mile and a furlong. Instead of this, you take one quantity, the furlong, as unity, and state the other in terms of it, and the least learned and least practised hearer at once apprehends the relation. This is precisely what is accomplished by money."

Nothing can be clearer or less ambiguous than this description of the function of money. After this exposition of the matter, it is astonishing to find this writer, further on, falling into the very error he is warning others against. He says:* "Given the fact of a general desire of one article of uniform quality, which is susceptible of easy and exact division, we have all the requirements of a common denominator in exchange satisfied." But what, in the name of common sense, has "a general desire" for an article to do with "a common denominator in exchange"? We exchange dissimilar things, one kind for another kind. We do not exchange things of the same denomination for each other. For instance, we exchange wheat for butter and butter for gold; not butter for butter or gold for gold. How can there be a common denominator for things of unlike denomination? The statement is an absurdity. Now the exchange relation is capable of expression in a common language. Whilst the commodities themselves

* "Money, Trade and Industry."

cannot be brought to terms of one denomination, their exchange relations can, and these relations are their values. What has desire to do with ratio? Values, as we have seen, are relations of quantities, ratios of quantities, and can be expressed in numbers. A common denominator of values is, therefore, a common denominator of numbers; or, in other words, it is a common denominator of quantities, not of qualities. Here, for instance, are two commodities whose value relation is as follows: 1 lb. sugar : 1 lb. coffee : : 2 : 25; which shows that 25 lbs. sugar exchanges for 2 lbs. coffee. What is the common denominator for this expression of value? The value of sugar to coffee is as 2 : 25. Since these are integers, they are commensurable with unity; therefore unity is the common denominator of their values. The common language of values is numbers. They cannot express themselves through a medium of gold, silver, or corn, any more than a man can express his thoughts through the medium of his clothes. A "general desire for one article" has no more to do with a common denominator of values than a demand for clothes has to do with language. In fact, it would be as sensible to talk of expressing the relation of a furlong to a mile by "an article" for which there was a "general desire," as to talk of expressing values, or constituting a common denominator of values, by the same thing. "You do not measure the relation of a mile to a furlong; you express it thus, 8 : 1. You

use a common language for the two quantities. You take a common term or denominator for the two distances and thus set them in immediate comparison with each other," says Professor Walker. Precisely so! and this is exactly what you do with values. "You use a common language for the two quantities," and any article of uniform quality, "for which there is a general desire," is as incapable of measuring or expressing the exchange relations of commodities as it is incapable of expressing the ratio of a furlong to a mile. Both are quantitative relations, and both can only be expressed numerically. The long and somewhat skilful argument by which Professor Walker endeavours to overthrow the errors of the so-called "Hard Money" advocates, is founded upon a fallacy as great as those he seeks to expose. When he writes of money as "expressing values" and as the "value denominator," he is writing correctly and scientifically. When, however, he writes of money as an "article of uniform quality, susceptible of easy and exact division," he is treating money as a commodity, and from the standpoint of a legalized institution. Scientifically speaking, it would be just as sensible for a government to pass a law declaring that there shall be two sunsets every twenty-four hours, or black shall be white, as to declare that 25 8/10 grains of gold shall be a "standard of value," and that money is a commodity. Legislators declare money to be a commodity; science says it is not and

cannot be. And so in trying to reconcile two opposing and contradictory theories, Professor Walker, in common with Macleod and many other able economists, misses the goal towards which the science of economy unerringly points. Approach the subject from whatever standpoint you may, providing it is in the true scientific spirit, and the only solution to the money question is found in releasing money from its association with a commodity. This is not the first occasion that the laws of nations have conflicted with those of science.

The pranks played by this association of money with a commodity are the strangest possible. It has led economists into a perfect labyrinth of mystery and confusion, until the science of exchanges resembles a Chinese puzzle.

It has led Francis Walker, one of the cleverest economic thinkers, to conclusions directly opposite to those he should logically have reached; similarly with Macleod, the mathematical economist. It made the former condemn paper money, after having satisfactorily and conclusively proved it to be capable of performing perfectly well the money functions, because it did not, forsooth, possess the functions of a commodity; and yet he starts with the definition "Money is that money does, that is, money; all that is money; only that is money, which performs a certain office." As well might he condemn a horse for not possessing wings, or

a cow for not raising wool. That which satisfactorily performs the money functions is good money, just as a steam-engine that performs the work required of it is a good engine. Again he says: "Money is that which passes freely from hand to hand, throughout the community in *final discharge of debts and full payment* for commodities."

In another place he says, that "When a man accepts money in payment for the product of his labor, he parts with that which, presumably, was capable of gratifying his own tastes and bodily needs, and takes instead, something which he does not intend or desire personally to consume or enjoy, or use in any other way than as the means or medium of securing later or elsewhere that which shall satisfy his individual wants." And again, "A sale of goods for money is only *half a transaction.*" * How can both parties to a transaction be considered as "finally discharged" of debt, and "full payment" for commodities declared to have been made, if the transaction is only "half a transaction"?

I have dwelt at length upon the commodity aspect of money, because it is this association which is the cause of most of the world's financial troubles. It is the conflict of two opposing forces that unsettles industry periodically. Money is constantly seeking to perform its functions as the

* These quotations are all taken from Prof. Walker's book, "Money, Trade and Industry."

medium of exchange, and is every now and then hindered and restrained by the commodity governing it, and as a general thing the commodity is master of the situation. It insists upon asserting itself. It causes the money, or rather the material by which money is known, to leave the country, to stay at home, to circulate, to be hoarded, to be plentiful or scarce, as seems most profitable and desirable to its owners. Commodity-money only facilitates exchange when it is more profitable for its controllers to do so than not. "The coinage of this specie basis," says William A. Whittick, in his admirable little pamphlet on the money question, "constitutes a world-wide monopoly of money which exploits industry to an appalling extent. It alternately stimulates and paralyzes industry; it is, in the hands of its owners, both the life and death of business enterprise. So far as it goes, and that is but a little way, it is life, but its limit is paralysis. We carry on our business enterprises until the money gives out; but the limit should be labor and material. How the discoveries of gold in Australia and California in 1847 stimulated the world's industries!! And yet the basic factors of that industry existed before these gold discoveries."

To sum up then: We have now discovered the true origin, nature and functions of money. It is an ingenious invention to avoid certain difficulties

and inconveniences brought about by unequal exchanges. It represents the inequalities in these exchanges, or, in other words, debts. In order to do this satisfactorily, it must be capable of representing and expressing precisely the exchange relationship of one commodity to another, or, in other words, values. Since values are the exchange relations between different quantities expressed numerically, it follows that the money must consist of some system of numbers by which these ratios are expressed. By bringing all commodities to an exchangeable equality, we find the numbers representing their exchange proportions. By finding the least common multiple for these numbers, and dividing it by each, we get the value expressions of all commodities in simple numbers. Since these are whole numbers, unity may be adopted for the common unit, and we have at once the relations of the purchasing powers of all commodities in terms of an invariable unit. The general adoption of this plan will enable anyone, at a glance at the daily market reports, to see the prices of any commodities. These units recorded fractionally, singly and in multiples on paper, issued for debt and made redeemable in all commodities, constitute money in the strict scientific sense. It thus becomes, in truth, the *medium* of exchange, not the *end*. Its units being invariable, it becomes a perfectly safe and scientific standard by which to reckon deferred

payments. A commodity is the *end* desired by exchange; money is only a *means* to that end, the mechanism by which exchanges are effected. A sale of commodities for money is, therefore, not an exchange. Exchange is then only in a transitional state; it is incomplete. It is completed only when a purchase of goods for the money takes place. A purchase is the complement of a sale. The two acts, by the same person, with the same money, is a complete exchange. The end sought in exchange is, therefore, the acquisition of commodities, not money.

Chapter IX.

GRESHAM'S LAW

IF evidence be required to demonstrate the unscientific thought responsible for our monetary systems, we find abundant proof in the importance given to what is known as the Gresham Law during the past two centuries. No theory in this branch of economic science is more frequently quoted, or more often appealed to, and yet its existence is entirely due to the fallacy which I have endeavoured to expose in the previous chapter, that money is a commodity. The Gresham Law contains about as much truth as the astronomical theories of the Rev. Mr. Jasper. Sir Thomas Gresham, the founder of the Royal Exchange, in the sixteenth century, observed that new coins rapidly disappeared from circulation, especially when the bulk of the coinage in circulation was light in weight. He discovered that in exporting the precious metals, money changers invariably selected the new full weight coins; hence the light weight ones remained in circulation. The persistency with which this occurred led Sir Thomas to formulate what has ever since been known as Gresham's Law, viz., "Bad money drives out good money, but good money cannot drive out bad money." Consideration of this law makes one

wonder whether monetary science is a branch of knowledge which conflicts with the fundamental law of natural philosophy, viz., the survival of the fittest. Let us consider the subject closely. If we analyze a coin we shall find it composed of a certain quantity of metal, moulded into a certain form and stamped with an inscription on each side. As a piece of metal it is merely a commodity. The inscription gives it the credit of the bank or government. Wherein does the money consist? In the nation's credit or in the metal contained in the coin? What causes it to be generally received, to circulate throughout the community? If I take a hammer, and, avoiding the loss of any of the metal, I deface the inscription so that it is unrecognizable, the coin will not circulate. No one will receive it on the same terms as before the inscription was defaced, notwithstanding that as a piece of metal it remains of precisely the same worth. I am compelled to send it to the mint and have the inscription renewed, or sell it to a gold or silver merchant as a commodity. *The effacement of the inscription has reduced the coin to a mere commodity. The money is destroyed.* Does anyone doubt this fact? If so, let him take a piece of gold of the same quantity, quality and shape as a five dollar gold piece or sovereign, and omitting the inscription, let him try to use it as money. He may put even more gold into it than is in the coin. No one but a gold merchant will

accept it, and then only as a commodity.* He will buy it just as he would buy tea, coffee or any other commodity. What, then, is the meaning of the phenomenon, viz., the disappearance of the largest and fullest weight coins? Merely this, that the tendency of commerce and of industry is towards cheapness, towards the destruction or abolition of *value*—as used in the commercial sense.† It is founded upon the economic law that men seek to gratify their wants with the least expenditure of energy, a law that corresponds to the line of least resistance in mechanics. Consequently, of two things, both equally well adapted to fulfil a certain function, the cheaper one will be selected. For this reason iron has superseded brass and wood,

* "Counterfeiters are flooding Cincinnati with spurious dollars of silver. The curious feature of this illegal act is, that the counterfeit is said to be pure silver, and, therefore, of a better quality than the government furnishes as a legal tender. The present market price of silver enables the counterfeiter to manufacture this superior coin and yet obtain for his labor a handsome profit."—*Philadelphia Ledger*, March 10th, 1894.

"An undergraduate of the University of Pennsylvania, who considers himself a practical joker, recently placed a five dollar gold piece on the tracks of the Reading Railroad, and after a train had passed over it, hammered it out of all shape, removing every trace of the die. Then he took it around to purchasers of old gold, who tested it by weight and acid, and told him how much they would give for it. The highest offer he received was seventy-five cents."—*Philadelphia Record*, Feb. 7th, 1894.

† I have dealt more fully with this subject in the Chapter on Value, viz., the constant tendency of industry—when free from governmental interference—to reduce the "valuable" to the merely useful.

and steel has taken the place of iron in many of the arts. For this reason iron itself will be displaced as soon as mankind finds a cheaper material capable of performing the same duties. For this reason, too, coins of short weight stay at home, and those of full weight go abroad. For this reason, were it not for the interference of governments, and for legislative enactments, gold and silver would be relegated to the arts to which they properly belong, and the cheapest and best form of money, paper, would be universally adopted. The Gresham Law is a thorough demonstration of the fact that the ability of money to perform its duties is a function which a commodity is incapable, *as a commodity*, of performing. In commerce, as in mechanics, the utility of an invention is determined by its ability to discharge the functions for which it was invented. As Francis Walker says: "Money is that money does."

Now, knowledge of the fact that when two kinds of coins were put in circulation, the one circulated freely whilst the other refused to do so, would lead to the inevitable conclusion that that which circulated was the better money, *i.e.*, better adapted for the work required; for what is the work required of money unless to circulate freely? Money is to trade what wheels are to a car, a means of facilitating its progress. Of what possible use would a wheel be to a car that refused to revolve? And yet we are gravely

informed that money which will not circulate is the best money! Gresham's Law is, therefore, an absurd and ridiculous fallacy. *Good money will always drive out bad money.* The cause of the "picking and culling" of gold and silver coins is this, that when coins function as money, they are not, properly speaking, commodities; as metals, they are; and coins, like everything else, obey the highest law of their being. This law is that they seek the sphere wherein they can perform the functions of that office for which they are best adapted; and this is the law of the survival of the fittest, a law which Gresham's theory contradicts. As coins, they are of less value than mere commodities. Their money functions are subordinate to their commodity function. But now, it may astonish "Greshamites" to learn that, as a matter of fact, money never goes abroad. It is the commodity that emigrates. Coins are sent abroad as bullion, not as money. They are sent to foreign mints and re-coined or sold to exchangers. We may sum up the matter as follows: Commodity-money is the subject of two powers, one governing it as a medium of exchange, the other as a commodity. The question as to whether a coin will perform the money function well or ill, whether it will circulate or not, is dependent upon whether its commodity worth is greater or less than its money worth. Any money that is tied to a commodity is, therefore, bad money, in the sense of not being reliable in performing the money

functions when it is needed. Good money is of that nature that at all times it obeys the law of its being and is subjected to no other law.

Gresham's Law shows further that the natural tendency of money is to dissociate itself from the commodity. A coin short in weight circulates where the full weight one cannot. The commodity begins to disappear from the moment a coin is started on its course. Either it disappears *per saltum*, or else it is gradually worn away by abrasion. The loss from use is in itself evidence of the unwisdom of allowing money to carry the wealth of which it should be merely the representative, with it. It is handicapped from the start.

We can now see the absurdity of striving to make money a commodity, or in associating it with a commodity. Subjected as it must be to two conflicting forces, it cannot well perform the money function so long as it is exposed to the force acting upon it as a commodity. Gresham's Law shows that as commodities, gold and silver refuse to perform the money function; they will not serve as money. It is only when their commodity forms disappear, are lost sight of, that they properly fulfil the function of a medium of exchange. Gresham's Law should, therefore, be amended, in order to become truthful, as follows: "Cheap money is the best money and drives out dear money," which means that the cheaper the material of which the money is composed, the better.

Of course, in order to be money, it must properly fulfil the duties required. Cheap money, therefore, does not mean *poor* money, *i.e.* inability to discharge the money function. Iron is cheaper than gold, but an iron bridge is infinitely preferable to one of gold. A locomotive constructed of steel, iron and brass, is cheaper than one built of gold and silver, but no one need be told that the former makes a better locomotive. So long, then, as it performs satisfactorily the money work, cheap money is the best money, and must of necessity drive out dear money.

Chapter X.

THE MATERIAL EXISTENCE OF MONEY

ECONOMISTS tell us that the precious metals seem to be specially designed by nature as the material out of which to coin money. Thus Prof. Jevons says, "some of the metals seem to be marked out by nature as most fit of all substances for employment as money. Accordingly, we find that gold, silver, copper, lead and iron have been more or less extensively in circulation in all ages. In almost all respects gold is perfectly suited for coining." *

Nevertheless, he confesses that when used in a pure state they are too soft and rapidly wear away. "When quite pure, indeed, gold is as soft as tin." Hence alloys are formed, and these so-called "precious" metals, specially designed by nature for man's use as a medium of exchange, need adulterating to render them at all serviceable. In other words, nature seems to have made a bad job in her attempt to furnish mankind with a satisfactory medium of exchange, and man has had to bring his art to her assistance. But the combined forces of art and nature have failed to make a perfect metallic medium, for this alloy is not proof against the gradual disintegration and death of the coin. From the time a coin starts upon its journey its dissolution commences. If there be

* "The Mechanism of Exchange."—Prof. Jevons.

any purpose or design in nature regarding the precious metals, it would seem to point to their final destruction, in common with man.

Gold and silver are no more ordained by nature to serve as money than a man's body is ordained to perpetual life. "Every year," says the governor of the Bank of England, "a fresh class of sovereigns become too light. The class which one year passes with full weight, loses enough by wear and tear to draw the scales next year against it. During their currency coins wear away, some more and others less. Name and substance, nominal weight and real weight, begin their process of separation. Coins of the same denomination become different in value because they are different in weight. The weight of gold, fixed upon as the standard of prices, deviates from the weight which serves as the circulating medium, and the latter thereby ceases any longer to be a real equivalent of the commodities whose prices it realizes. The history of coinage during the middle ages, and down into the 18th century, records the ever renewed confusion arising from this cause." *

The natural tendency of circulation to convert coins into the mere semblance of what they profess to be, and to reduce the weight of metal they are officially supposed to bear, is recognized by modern legislation, which fixes the loss of weight sufficient to

* "The Mechanism of Exchange."—Prof. Jevons.

demonetize a gold coin, or to make it no longer legal tender. "It is the theory of the present English law," says Professor Jevons, "that every person weighs a sovereign tendered to him, and assures himself, before accepting it, that it does not weigh less than 122 5-10 grains. In former days, it was not uncommon for people to carry pocket scales for weighing guineas, and such scales may be seen in the old curiosity shops. But we know the practice has been entirely given up, and that even the largest receivers of coin, such as the banks and railway companies, and even the tax offices, post office, etc., do not pay the least regard to the law. Only the Bank of England, its branches, and a few government offices, weigh gold coin in England. The result is that a large part of the gold coinage is now below the least current weight, and all persons of experience avoid paying old sovereigns into the Bank of England. Only ignorant and unlucky persons or else large banks and companies, which cannot otherwise get rid of light coin, suffer loss. The quantity of light gold coin withdrawn by the Bank, did not many years exceed half a million a year; during the last few it has varied from £700,000 to £950,000. As the average amount of gold coined annually is four or five millions, and the coins melted or exported are for the most part new and of full weight, it follows necessarily that the currency is becoming more and more deficient in weight." He also says: "In 1869

I ascertained, by a careful and extensive enquiry, that 31 1-2% of the sovereigns, and nearly one-half of the 10s. pieces were then below the legal limit."*

Was there ever a more complete exposure of the failure of a thing to perform its functions? And yet the writer thinks he sees, in the supply of gold, an all-wise provision of nature for supplying man with a medium of exchange! This substance specially prepared by nature, and assisted by the art of man, bolstered by legislative enactments, supported by authority of the State, fails to carry out what it is decreed to do, and the loss caused by its failure is allowed to fall upon the "ignorant and unlucky." Well does John Stuart Mill write: "But though governments or nations can in some measure determine what institutions shall be established, they cannot arbitrarily determine how these institutions shall work." Apart, therefore, from the fluctuations in exchange power, gold and silver are physically unfitted to be used as money. Macleod says: "But when we consider the purposes for which money is required, it is easily seen that no substance possesses so many advantages as a metal. The use of money being to preserve a record of services due its possessor for any future time, it is clear that money should not alter by time. All civilized nations, therefore, have adopted a metal as money; and of

* "Money the Mechanism of Exchange."

metals, gold, silver and copper have been chiefly preferred."* If the chief use of money is to preserve the record of services due to its possessor, nothing would appear so serviceable as good parchment paper. One fact alone should, however, suffice to convince us of the unsuitableness of using gold and silver for money, viz., their extreme cost. Prof. Jevons has computed the cost to England involved by the use of gold, silver and bronze money. He says: "The cost of the currency is made up of four principal items: the loss of interest upon the capital invested in the money, the loss by the abrasion of the gold coin, the expenses of the mint, and lastly the casual loss of coins. The last item is of wholly unknown amount." He estimates these items as follows:—

Three and one-half per cent. on gold coin in circulation, bullion in Bank of England, silver and bronze coin, total -	£131,125,000
Loss of interest	£4,262,000
Wear of coin	48,000
Mint estab.	42,000
Total	£4,352,000

This, however, is only one part of the loss. If gold and silver were relegated to the arts, where they properly belong, the demand for them would immediately decline, and a vast amount of labor now employed uselessly, would be released to follow more productive channels. I have, however, shewn in

* "Theory of Credit."

discussing the Gresham Law, that the cheapest substance (providing it is suitable and will perform satisfactorily the work) is the best substance for money uses as for everything else.

In the arts, we do not use silver when copper will answer our purpose as well, nor brass when iron is as serviceable. A sewing-machine, constructed of nickel and bronze, would not be any more useful than one of cast iron and steel; and this steel pen with which I write is quite as useful as one of gold. Now experience has demonstrated that paper is the most serviceable of all substances for money purposes. It combines all the so-called advantages of a metal currency, and has none of its disadvantages. It is cheap, useful, durable, easily engraven, made cognizable and portable, can represent any denomination of value, is not subjected to loss by abrasion, nor to commodity fluctuations, is readily and inexpensively replaced when lost, and finally is not liable to resolve itself into a commodity and leave the country when it is most needed.

The vast importance paper money has been to the world, it would be impossible to over-estimate. As Macleod says: "Paper money has had incomparably more influence in the world than all the gold and silver. Credit and paper now form the great circulating medium or currency of the world, and amounts to at least fifty times the

quantity of specie in this country." In the United States, at least 98 per cent. of the entire business and commercial transactions of the country is done upon a credit and paper basis, without the intervention of specie. Experience, therefore, unites with the great law of philosophy in declaring cheap money to be the best money. The nearer it approaches the ideal, the more perfectly will money perform its functions. "So long as nations continue in a low state of civilization, all the money or credit is made of some material substance. But when they advance in civilization, they make use of credit in another form." *

* H. Spencer, "Social Statics."

Chapter XI.

PRICE

PRICE is defined by economists as the "money value" of commodities. Francis Walker defines it as the "power a thing has to purchase money." He, however, in common with most other writers, uses the term value as synonymous with purchasing power. I have already pointed out the difference between these two terms. The definition above given, viz., "the power a thing has to purchase money," whilst in one sense a correct one, conveys the idea that the price of a thing varies, not only with the demand for the thing itself, but with the demand for money. In other words, by this definition the idea is implied that money is a commodity, and therefore is subject to the law of supply and demand. We have seen that money is the expression of values of commodities. But how is it possible to accurately express values by a medium which is itself subjected to independent influences?

Imagine a thermometer, the scale of which is composed of a highly expansive substance, and so situated that it is acted upon by an artificial heat, to which the bulb is not exposed. It is evident that such conditions would render the thermometer altogether worthless. We should have a scale whose graduations measured 1-32 of an inch one day, 1-16 of an inch another, 1-8 another,

and so on, according to the degree of artificial heat to which it is exposed. Hence, without any change of atmospheric temperature, we should find the scale registering, say, 60° one minute, 70° another, 80° another, and so on.

This is precisely analogous to what happens in our monetary system with commodity-money.

The bulb or mercury corresponds to commodities; the atmospheric heat to supply and demand to which commodities are subjected. The scale represents money and the expansive substance is gold. The artificial heat bearing upon the scale is the supply and demand of money. Now it is very certain that so long as money, or its commodity, is subjected to the law of supply and demand, it becomes quite impossible for it to register, even with an approximation to truth, the actual variations in the values of commodities. As a means of accurately expressing values, such a system must, from the nature of things, be a total failure. And when we reflect that this scale—money—is controlled by a class of speculators whose interests it is to be continually changing it,—first enlarging and then diminishing its graduations, — changing the purchasing powers of dollars and sovereigns by manipulating their supply, — how unreliable such a monetary system is, how false it must be in its mission, how dangerous to commerce and industry, how menacing to the welfare of society, the slightest consideration will make evident.

I have already shewn that all commodities may be considered to have *special* purchasing power, whilst money is *general* purchasing power. I should, therefore, define price as the special purchasing power of commodities, expressed in terms of general purchasing power. The price of a thing is its special purchasing power expressed in units of general purchasing power. The immense advantage which an invariable medium of exchange affords to commerce we may readily see, as well as the disadvantages arising from a variable one. With money as an invariable medium, there can be no such thing as a general rise or general fall in prices. This phenomenon occurs whenever money is affected by the law of supply and demand. With a scarcity of money prices go down, and with a glut of money prices advance. By following to its termination a complete exchange, we shall best perceive the serious evils arising from the use of a variable medium. A complete exchange transaction is accomplished only after the money received for the sale of one commodity is used to purchase some other. For example, let A represent a commodity for sale, M the medium of exchange (money), and B another purchasable commodity. Now the sale of A is represented by A=M; but as money is only a means to an end —an intermedium—the exchange operation is but half performed. It is completed as soon as the money is used to purchase something else. M=B

represents, therefore, the second half of the exchange transaction, which is wholly represented by A=M=B, which represents exactly the true functions of money. It shows that A is exchanged for B through the intervention of M. M should, therefore, merely record the relations existing between A and B, and in order to do this, it must be, *per se*, neutral.

Whilst economists recognize the variations to which commodity-money is subjected, they argue that these variations do not work injustice, since they affect all commodities proportionately. Thus if M increases in volume and affects the price of A, it affects B to the same degree, and, therefore, the relation of A to B is expressed as accurately as if M had remained constant. Thus, John Stuart Mill says: "The relations of commodities to one another remain unaltered by money; the only new relation introduced is their relation to money itself, how much or how little money they will exchange for; in other words, how the exchange value of money itself is determined." Now, it is true that "the relations of commodities to one another remain unaltered by money," providing that the complete exchange takes place at the same instant and in the same place; but if between the time of selling A and purchasing B an interval elapses, during which M has changed its relation to A and B, then it is certain that the use of M *does alter the relations of commodities to one another;* and this is what generally happens. It

is seldom that a man finds it convenient the instant he sells his goods, or receives money, to purchase other commodities. He finds it necessary, as a rule, to store it for a time when he will need certain things. Under our present system of credit, goods are invariably sold upon time, 30, 60 and 90 days. The prices for which such goods are sold are those ruling at the time of the sale. If, therefore, a change occurs in the supply and demand for money, during the time given for payment, it is very certain that an injustice may be done to the seller by this disturbance, since the relation of commodities to each other has been changed by reason of the change in the purchasing power of money.* With

* "If all prices were altered in like proportion, as soon as money varied in value, no one would lose or gain, except as regards the coin which he happened to have in his pocket, safe or bank balance. But, practically speaking, as we have seen, people do employ money as a standard of value for long contracts; and they often maintain payments at the same invariable rate, by custom or law, even when the real value of the payment is much altered. Hence, every change in the value of money does some injury to society."

"It might be plausibly said, indeed, that the debtor gains as much as the creditor loses, or *vice versa*, so that on the whole the community is as rich as before; but this is not really true. A mathematical analysis of the subject shows that to take any sum of money from one and give it to another will, in the average of cases, injure the loser more than it benefits the receiver. A person with an income of one hundred pounds a year would suffer more by losing ten pounds than he would gain by the addition of ten pounds, because the degree of utility of money to him is considerably higher at ninety pounds than it is at one hundred and ten. On the same principle, all gaming, betting, pure speculation, or other accidental modes of transferring property, involve, on the average, a dead loss of utility. The whole incitement to industry and commerce and the accumulation of capital depends upon the expectation of enjoyment thence arising, and every variation of the currency tends in some degree, to frustrate such expectation and to lessen the motives for exertion."—"Money and the Mechanism of Exchange," JEVONS.

a medium of exchange liable to experience all the fluctuations to which other commodities are subjected, by reason of variations in supply and demand, by "corners," gambling and speculation, is it any wonder that success in trade and commerce seems to be a mere matter of chance and good luck, rather than the natural results of conforming to certain scientific laws and steadfastly working along their prescribed lines? Here, then, we find another proof of the absurdity and perniciousness of basing money upon a particular commodity, already demonstrated in discussing the Gresham Law.

Chapter XII.

CAUSE OF GENERAL RISE AND FALL IN PRICES AND ITS REMEDY.—DEVELOPMENT OF VALUE AND PRICE FROM BARTER

THE statement made in the previous chapter that "with money as an invariable denominator of values there can be no such thing as a general rise or general fall in prices," appears so startling that a complete elucidation of the matter is desirable. As this demonstration will be made by a consideration of the price form of commodities, I shall first shew how this form is developed from simple barter.

Barter is the direct exchange of commodities with each other; thus, if two pounds of cheese are exchanged directly for one bushel of wheat, we have simple barter. If, however, money be introduced and two pounds of cheese be sold for a certain sum of money, and this money be used to purchase the bushel of wheat, this is said to be selling cheese and buying wheat. The two transactions are identical in results, providing they both take place at the same place and at the same time. An interval between selling the cheese and buying the wheat may, however, cause the results to be widely different. Referring to the illustration given on page 102 of

the chapter on Money, we saw how the relations of commodities were expressed. Take the following commodities as equivalents in exchange:

Barter or Exchange Form.

$$\left.\begin{matrix}\text{Sugar}\\ \text{in lbs.}\\ 400\end{matrix}\right\} = \left\{\begin{matrix}\text{Butter}\\ \text{in lbs.}\\ 50\end{matrix}\right\} = \left\{\begin{matrix}\text{Coffee}\\ \text{in lbs.}\\ 40\end{matrix}\right\} = \left\{\begin{matrix}\text{Potatoes}\\ \text{in bush.}\\ 20\end{matrix}\right\} = \left\{\begin{matrix}\text{Cloth}\\ \text{in yds.}\\ 25\end{matrix}\right\} = \left\{\begin{matrix}\text{Gold}\\ \text{in oz.}\\ 1\end{matrix}\right.$$

Now since values are inversely proportional to the quantities in which goods exchange, we can arrive immediately at the value form by dividing their least common multiple by each quantity. Thus:

400,

400	50	40	20	25	1
Sugar	Butter	Coffee	Potatoes	Cloth	Gold

which becomes:

Value Form:

Sugar:	Butter:	Coffee:	Potatoes:	Cloth:	Gold:
as 1 :	8 :	10 :	20 :	16 :	400

We have seen that price is the money form of commodities. It follows, therefore, that the price form is evolved directly from the value form by merely applying a common denominator to the latter.

This common denominator can be any number arbitrarily selected. All whole numbers being simple multiples of unity we will select one as our common denominator. In the above example it will be seen that 1 happens to be the equivalent, or the expression of the purchasing power of 1 pound of sugar at this

particular time. But it is likewise the expression of the purchasing powers of 1-8th pound of butter, 1-10th pound of coffee, 1-400th ounce of gold, etc., and represents one just as much as another. Hence this unit being in nowise based or dependent upon any one commodity, it is absolutely invariable. All we need do is to apply the decimal system and we at once arrive at a method by which the purchasing powers of all commodities may be expressed and their daily fluctuations registered with mathematical fidelity and precision.

Taking 1 as the denominator and applying it to the value form we obtain the following:

Price Form:

Sugar	Butter	Coffee	Potatoes	Cloth	Gold
1	8	10	20	16	400

1.00

which means, that if sugar be 1 unit per pound, butter is worth 8 units, coffee 10 units, and so on. Here we have traced the development of price from the exchange relations of commodities. We are now in a position to ascertain the cause of a general rise or fall in prices, and having discovered the cause the remedy will become apparent. Taking the price form, let us write down the values of several commodities.

Suppose tea to be selling for 60 cents per pound; wheat 75 cents per bushel; iron $25 per ton; silver 90 cents per ounce; whiskey $2.50 per gallon; gold

$20 per ounce. Remembering that the common denominator of values is $1, the price form of the above commodities becomes:

Tea	Wheat	Iron	Silver	Whiskey	Gold
60	75	2500	90	250	2000

1.00

Now, it is quite evident that any variation in the denominator affects all the numerators proportionately. Thus, if the denominator be doubled, the effect is the same as if all the numerators were halved. Similarly, halving the denominator is the same thing as doubling the numerators. Since these fractions constitute the prices of the various commodities (*i.e.* tea being 60-100 dollar per pound; wheat 75-100 dollar per bushel), it follows that variations in the denominator of values causes variations in the prices of commodities; and since all commodities have for their denominator some commodity monetary unit—the dollar, or sovereign, or franc—it is evident that any change in money causes a corresponding change in the prices of commodities. An increase in the denominator results in a decrease in prices, and a decrease in the denominator causes an increase in prices.

The cause, therefore, of a general rise or a general fall in commodities, is the use of a variable denominator of values.

Chapter XIII.

MONEY SUPPLY AND DEMAND

AS a necessary consequence of regarding money from the commodity standpoint, economists have found themselves confronted with all sorts of unanswerable problems. For instance, if money is a commodity, how can we prevent it from fluctuating in obedience to the law of supply and demand? And if it is continually varying, how can money be a common denominator of values, or a standard of deferred payments? Will not every variation in the supply and demand interfere with its functions as an invariable denominator? And why should not this commodity be governed by the law governing other commodities, and its production tend to cheapness and low cost instead of dearness and high cost? I have already shewn, when dealing with the subject of price, how a variable denominator disorganizes the whole world of exchange transactions by raising and lowering prices. Under these conditions, instead of facilitating exchange, this value denominator becomes a hindrance and an obstruction, and in place of functioning as the mere medium of exchange, it dominates and controls it. Economists shew very clearly how the purchasing power of money rises and falls with every diminution and increase in its supply, the demand remaining constant. "The value of money," says John Stuart Mill,

"other things being the same, varies inversely as its quantity; every increase in quantity lowering its value, and every diminution raising it in a ratio exactly equivalent."*

The result to which economists are naturally led involves an extraordinary contradiction, viz., that exchanges must be limited to the supply of money. This is what is implied by the expression "over-trading." This is surely a reversal of the natural order of things. What would be said of a theory which propounded that the amount of land cultivated should be governed by a certain limited production of agricultural implements, or the volume of railway traffic by the production of locomotives, or the road transportation of the country by an artificially regulated supply of horses? And yet, such propositions would be wisdom itself compared to that of allowing commerce to adjust itself to a legally restricted supply of money. Experience has taught us the wisdom of allowing the production of commodities to be limited only by the wants and needs out of which their production arises. Thus, the production of agricultural implements is governed by the demand which arises from the cultivation of land, and the production of locomotives is controlled by the demand arising from transportation, and so on. *Since all industries are dependent for their existence on money, in some*

* "Principles of Political Economy."

form or other, the amount of money issued should be governed wholly by the demand arising from trade and commerce.

We are now in sight of the shoals and quicksands where the commodity-money advocates inevitably founder. They stand between two horns of a dilemma, each involving a contradiction. For the claim that money is a commodity means the surrender of money to the influences governing commodities, such as supply and demand, under which it must fluctuate and cannot therefore be a standard. It is incapable of registering fluctuations in the values of other commodities.

On the other hand, in order to save money from such fluctuations and preserve it as a standard, it is necessary to shield it from supply and demand influences, and this takes it at once out of the realm of commodities.

In other words, *when treated as a "standard of value" or of deferred payments, money is no longer a commodity; and when treated as a commodity, it is no longer money.* Nothing is more amusing than to witness the alarm and consternation into which the "hard" or commodity-money people are thrown the moment their theories are seriously and intelligently discussed. If you try to shew them what money really is, in its scientific aspect, they talk about the impossibility of carrying on commerce without "a standard of value." If you take them on their own ground and insist upon treating money as a commodity, and strive to shew

them that the inevitable tendency of industry is towards cheapness in the production of commodities, and the necessity therefore of cheapening the production of this commodity by the free coinage of silver, etc., they become frightened, and talk of the ruin of the country, the disorganization of prices, etc.

Consider for a moment what money really is. Commencing with Aristotle, who had probably the most marvellous mental perception of any man of ancient times of whom we have knowledge. He says, "but with regard to a future exchange (if we want nothing at present, that it may take place when we do want something) money is, as it were, our *security*. For it is necessary that he who wants it should be able to get what he wants."

F. Cradocke, a London merchant in the time of the commonwealth, says: "——it is to be observed that money itself is nothing but a kind of security, which men receive, when parting with their commodities, as a ground of hope or assurance that they will be repaid in some other commodity, since no man will either sell or part with any, for the best money, but in hopes thereby to procure some other commodities or necessaries." Bishop Berkeley asks in his Querist, "whether the true idea of money, as such, be not altogether that of a ticket or counter? And whether money be not in truth, tickets or tokens for recording and conveying such power? and whether it be of consequence what material the tickets are made of?"

Henry Thornton says, "money of every kind is an order for goods." Adam Smith says, "a guinea may be considered as a bill for a certain quantity of necessaries and conveniences upon all the tradesmen in the neighborhood." So Bastiat speaks of money as "an acknowledgment or title, an order of the state, a token, etc." Baudeau says, "it is a kind of bill of exchange or order payable at will of the bearer, etc."

"It is one of the special merits of the economists," says Macleod, "that they clearly saw the true nature of money."

If, then, money is merely a ticket, a token, a mark, a counter, an order, how can it be a commodity? Why should it be subjected to the laws of supply and demand? Tickets, counters, marks, are not subjected to any such laws. When I purchase a ticket for a theatrical performance, or for a railroad journey, I pay a fixed sum arranged by the theatrical manager or the railroad company. The ticket is merely the evidence of a debt or obligation on their part to render me a certain service. This ticket is not a commodity, it is but a piece of paper. It is of no worth *per se*, and is subject to no fluctuations. This transaction means, that in paying them a certain sum of money I have given them an order on society, a note or coin possessing general purchasing power, which entitles the holder to any product or service

desired, to the extent of the denomination of the note or coin.

In return they have given me an order on themselves, entitling me to a seat at the theatre at a particular time, to witness a performance, or to proper conveyance to a certain place. Now the only difference, in reality, between money and a theatre ticket or railroad ticket is, that the former is a general order on society, the latter are special orders on particular persons or companies. Their nature is otherwise precisely similar. In purchasing such tickets we never think for a moment of the material of which the ticket is composed, nor, in fact, of the ticket at all, apart from what it represents. In itself it is a piece of cardboard, which we should not trouble to pick up were it not for what it represents Further, we should consider an agent insane who made his tickets of gold or silver. We should call it the most wanton form of extravagance. Again, these tickets are not issued on any notion of maintaining the "value" of the tickets. The number of seats sold or persons carried is not governed by the number of tickets issued; on the contrary, the number of tickets printed is governed by the number of people desiring to travel, or by the capacity of the theatre. A theatre ticket or a railway ticket is merely a convenient means of recording a debt, and this is precisely what money is. An individual issues

one to society as an order on him to fulfil a certain pledge or obligation of a *special* nature. Society issues the other to individuals as an order on it to fulfil its pledges or obligation of *any* nature. The absurdity of limiting the amount of money issued, in order to maintain it at a certain "value," is equivalent to that of a railroad company limiting the number of tickets printed in order to maintain a certain fare. What should we say if such a company issued tickets based upon a per capita calculation of the population of the towns through which it ran, and insisted that the traffic should be limited to this number? The disastrous effects of this limitation in the supply of money we shall hereafter see. The question, therefore, as to the amount of money needed by a nation, is one which no man can possibly answer, nor is it important that we should be able to do so. The supply of money, like the supply of anything useful, must be governed by the transactions out of which its need arises, and its issuance must be made as free as the transactions themselves.

In answering the question, "Can there be an over-issue of money?" two things must be considered. If by issue is meant the mere printing of certificates or notes, the answer is that no harm is done beyond the slight loss in paper.

On the other hand, if by "issue" is meant the paying out of money by the government or individuals,

in exchange for commodities and services, it is evident that there can be over-issues, just as a railroad company can sell more tickets than its carrying capacity, or a theatre manager more than his theatre will accommodate. Money represents debts which society or individuals agree to redeem, and since there is a limit to the productive power of every one, there is also a limit to every one's ability for settling debts; hence, there must be a limit to the issuance of money. This limit, however, is only governed by the wealth or productive power of those issuing it. Money must necessarily be backed by wealth, and so long as it does not exceed the purchasing power of the wealth behind it, there can be no danger of over-issue.

When treating of wealth I shewed that a commodity was something useful and was exchangeable for some other useful thing. Now money, as we have seen, is not a commodity; it is the medium between commodities by which they are proportioned and exchanged. It is a very useful invention for facilitating and assisting commerce. But the question arises, if money is useful and exchangeable, does it not answer to the definition of a commodity, just given? Is not money a useful invention, and is it not exchangeable for commodities? When discussing the subject of exchange, we saw that the test of a complete exchange was reciprocal satisfaction. The exchange of commodities for money (*i.e.* a sale)

does not afford reciprocal satisfaction. As Francis Walker says, "men take it (money) not for its own sake, but for what it will bring them; they hold it not to enjoy it, but to be ready for the moment when they shall part with it to obtain that which they will enjoy."

Macleod also says, "the use of money, being to preserve the record of services *due* to its possessor for any future time, etc."

So Thornton says, "money of every kind is an order for goods." "There is," says Le Trosne, "this difference between an exchange and a sale; that in an exchange everything is consummated or completed for each party. They possess the thing which they desired to procure, and they have only to enjoy it. In the sale, on the contrary, it is only the purchaser who has attained his object, because it is only he who is in a position to enjoy. But everything is not ended for the seller."

For this reason a sale is, as we have seen, a demi-exchange, or, as Francis Walker says, "only half a transaction." Money, therefore, is not itself, in the economic sense, an exchangeable commodity. Money is not the thing itself exchanged; it is the medium of exchange, the middle thing, the symbol of satisfaction.

It is a "ticket," an "order," or "counter." A ticket for a theatre is a very useful institution, and is given to the purchaser for money; but nobody

regards the acquisition of this mere ticket as of any account apart from what it represents. Deprive it of its significance, and it is nothing but a piece of paper, utterly useless and valueless; the same is true of money. Stripped of the power with which society has clothed it, it is worthless. "There cannot, in short," says Mill, "be intrinsically a more insignificant thing, in the economy of society, than money, except in the character of a contrivance for sparing time and labor. It is a machine for doing quickly and commodiously what would be done, though less quickly and commodiously, without it."

Apart from its function as the medium of exchange, money is, therefore, nothing. In fact, *it is absolutely essential, from the very nature of things, that money should be nothing apart from its exchange functions.* Money is the common denominator of values, and values can be expressed only by numbers. Now a denominator of numbers has no existence apart from the numerator. Its *raison d'être* is to qualify the numerator; it disappears with it.

Since money is created simply to fulfil a special function, it can have no independent commodity existence. The values which it expresses do not reside in money, nor are they a part of it. They are the attributes of the wealth that is behind it as guarantee of its redemption, and which cause it to circulate. Money is not itself wealth, but merely its representative or symbol. Like the denominator

of a fraction, money expresses the value of the numerator, and disappears with it; or, like the sign of equality, it expresses the relation of two things, but is, apart from those things, meaningless.

The question of the supply of money may, therefore, be thus summed up. There should be an abundance, in order to meet all the requirements of business, and the supply should be governed by these demands instead of allowing business to adjust itself to a fixed supply. Money, when issued on a scientific basis, obeys but one law. In order to do this, it must be, *per se*, neutral. The substance chosen should be *most plentiful*, so that it could not possibly be monopolized. Value arises only where scarcity exists—where the supply is limited; hence gold is the worst possible material of all for monetary purposes.

We have also seen that so-called commodity-money is subjected to two conflicting forces, the stronger of which it is bound to obey. As a commodity it is subjected to the law of supply and demand, and seeks that field where it can realize for itself the best returns. Now it is only as a commodity that money is capable of being exploited. It is in this capacity alone that money brokers and bankers are able to extort interest. Money is a source of profit to those who deal in it, only so far as it is controlled by the laws of supply and demand. Hence, with the adoption of an invariable

ideal unit of purchasing power, and with freedom to monetize all forms of wealth alike, interest or payment for the use of money would die a natural death, since the supply of money would always equal the effective demand. The first attack upon the unjust privilege accorded money by legislation was made by Adam Smith, who showed that it was not the highest form of wealth. He strove to reduce it to the level of other commodities. The death-blow to privilege will be by reducing money to its natural basis—which is beneath that of commodities—to the condition of a mere medium, or tool of commerce.

Chapter XIV.

CREDIT—THE CAUSE OF FINANCIAL PANICS

WHEN a merchant accepts money for his goods, he receives it believing he can exchange it again for other goods he may need. He accepts it in expectation of its future redemption. Here the element known as "credit" enters. Credit is defined as "expectation of future payment for property transferred or promises given."* The person who sells goods expecting a future return is said to sell on credit. The seller is termed a creditor and the buyer a debtor. The amount due the seller is to him a credit, and to the purchaser a debt. Credits and debts are merely two aspects of the same thing. Every credit is a debt, and every debt a credit. Whenever a transaction occurs, in which one party receives satisfaction and the other does not, the latter is said to receive credit in place of satisfaction. This credit entitles him to satisfaction at some future time. We may define credit, therefore, as the expectation or anticipation of satisfaction. Credit and debt are merely the two poles of satisfaction, credit being the positive and debt the negative pole. Thus, if we estimate a man's wealth we place the plus or positive sign in front of every credit and the minus or negative in front of every debt.

* Webster.

Every commercial transaction must necessarily take one of two forms, either the barter or credit form. Goods are exchanged for goods or for credit; the direct exchange of one commodity for another is barter; and wherever this does not take place, credit takes the place of one or other commodity. Practically, all the commerce and trade of the civilized world is done upon a credit basis. Credits may be divided into two classes: stationary and circulating. Circulating credit is money, but it is customary to apply the term credit exclusively to the stationary class. Thus, if in exchange for goods supplied, a man gives me his promissory note, payable six months hence, and I am unable to use it to purchase other goods, or get others to accept it in payment of debts owing by me, the note remains with me until mature; it is stationary. Such a note whilst in my possession is simply a credit note, it is not money. If, on the other hand, I can pass it to obtain the satisfaction I desire, the note, being current, is currency or money. Credit is purchasing power. Now, purchasing power may be special or general; it is general whenever it is generally transferable and acceptable. Thus, legal tender represents general purchasing power; *i.e.* it is generally accepted throughout the country by all people in payment of all debts. On the other hand, a mere promissory note which is not generally negotiable, is an example of special purchasing power. It is given to a particular person in payment of a

special debt, and cannot be used by that person until maturity, owing to his inability to pass it on. All commodities have special purchasing power, and the exchange of commodities for money is the transformation of special purchasing power into general purchasing power. Circulating credit is, therefore, general purchasing power, and stationary credit is special purchasing power. For instance, railway and theatre tickets are credit notes representing special purchasing power. They are redeemable in railway journeys and admissions to theatrical performances; and since they are not negotiable, and cannot be used to purchase other commodities, they are stationary credits. Although it is customary in trade to distinguish between money and credit, yet, as we have seen, they are of precisely the same nature. Strictly speaking, credit is the general term of which money is a species. One often hears a so-called cash business contrasted with a credit business, as though the two were of opposite character; the truth being that cash is only a higher and more general form of credit.

"They are each a right or title to demand something to be paid or done by someone else. No one can compel another to sell him anything for money or credit. When, therefore, any person has voluntarily taken money in exchange for anything, it is in reality only credit; because he only takes it in the belief that he can exchange it away again." (Macleod.)

The attempts of governments and legislators to make of money a commodity, is nothing more nor less than an attempt to destroy the chief function of money. The idea that money must be "something valuable," "something having intrinsic value" in order to constitute "honest" money, shows a complete misconception of money and it functions; for if money is a valuable commodity, if it is, *per se*, an equivalent for the goods purchased, it cannot represent a credit or a debt. If in return for goods I give their equivalent in "full value," there is no element of credit whatever; the transaction is a barter transaction. Now money does not enter into barter. Instead of an exchange of present satisfactions, the use of money involves the exchange of an immediate satisfaction for a deferred satisfaction. All commodities represent immediate satisfaction; *i.e.* they themselves satisfy human wants and desires. Money and credit are merely the symbols of or rights to satisfaction; hence, when the commodity appears, satisfaction accompanies it, like a man and his shadow; it is no longer deferred, it is present. Therefore, "commodity-money" is a contradiction in terms. Hence gold and silver coins of "full value" are not, scientifically speaking, money; they are not representatives of debt. The worth of the gold and silver which they contain cancels the debt which, as money, they represent.

We have now to see the effect of the credit system upon commerce. By far the greater part of the

world's commerce is done on a credit, as distinguished from a cash basis. A report from a representative house, referred to by Macleod, shews that "specie did not enter into their transactions for little more than 2%." This was on transactions of upwards of £1,000,000.

"A similar investigation instituted by some bankers, resulted in the fact that specie only entered into their operations to the amount of 4 per thousand."

It has been estimated that the amount of credit in use in Great Britain is at least £5,000,000,000, the amount of coin and notes being about £120,000,000. In the United States not more than 2% of the business done is on a cash basis. The creation of this enormous volume of credit —*stationary credit**—has been caused by the absurd restrictions which governments have placed upon the issuance of money. Industry, which is always naturally ahead of finance, demands a greater volume of currency than exists anywhere; and since money is scarce, industry calls credit into play. In fact, were it not for the credit system, commerce and industry would decline to where it was a century ago.

John Law said: "The introduction of credit augments the quantity of money more in one year

* It will be understood that when speaking of credit in contra-distinction to money I mean stationary-credit, money being circulating-credit. The former is usually insecure and not properly backed by sufficient wealth. It is this form of credit which is so uncertain, so dangerous.

than a prosperous commerce would do in ten." It has been shown by J. S. Mill and others, that the effect of credit upon prices is the same as an increase of the volume of the circulating medium. Since credit affects the supply and demand of money, just as an increase in the amount of money would do, it is obvious that prices must be affected to the same extent. "In a state of commerce in which much credit is habitually given," says Mill, "general prices, at any moment, depend much more upon the state of credit than upon the quantity of money. For credit, though it is not productive power, is purchasing power; and a person who, having credit, avails himself of it in the purchase of goods, creates just as much demand for the goods, and tends just as much to raise their price, as if he made an equal amount of purchases with ready money."

So Macleod says: "It is the enormous creation of credit in modern times, in the form of banking credits and mercantile credits, which has so prodigiously raised the prices of products, and diminished the rate of interest, in the last two centuries, in this and many other countries. It is the quantity of credit in modern times which chiefly determines the price of products; and variations in the quantity of credit produce more changes in the prices of products than any variations in the quantity of gold and silver; and it is the abuses of credit which produce these terrible calamities, termed

commercial crises and monetary panics, which we shall have to investigate afterward."

The cause of these calamities, however, as I shall hereafter prove, is quite the opposite of what Macleod and other economists would have us believe. It is not the abuse of credit that creates these calamities, it is the scarcity of money. It is the interference of legislators and governments with natural operations, that causes financial trouble; the attempt to compel people to do the impossible, viz., to transact the entire business of a nation upon a single commodity basis. It is the result of attempting to redeem credits in one particular commodity, instead of in all; it is the attempt to drive the camel through the eye of the needle.

In the chapter on Price, I have shewn the cause of the phenomenon known as a general rise and general fall of prices, which is due to the fluctuations in that which is used as the denominator of values. Referring to the example there given: tea is selling for 60 cents per pound, wheat 75 cents per bushel, iron 25 dollars per ton, silver 90 cents per ounce. Now, since the dollar is the common denominator of values, the price form of these commodities is as follows:—

Tea	Wheat	Iron	Silver
in pounds	in bushels	in tons	in ounces
0.60	0.75	25.00	0.90

1.00 (one dollar)

It is apparent that the values of these fractions vary inversely with the denominator. If by artificially restricting the supply, the value of one dollar should increase to two dollars, the above fractions are changed as follows:—

Tea	Wheat	Iron	Silver
.60	.75	25.00	.90
	2.00		

The price of tea is now 60-200 cents, or 30 cents per pound, instead of 60 cents. So the price of wheat has fallen from 75 cents per bushel to 37 1-2 cents. Iron has also fallen 50% in price, viz., from $25 per ton to $12.50 per ton, etc.

Thus the effect of increasing the purchasing power of the denominator, is to decrease the price of all commodities; and if the denominator is increased 100% there is a general fall in prices of 50%. And conversely, a fall in the value of the denominator results in a general rise in prices. Now, to the general public, there is never apparently any change in the value of money; a dollar is always a dollar, it is never two dollars. Hence, to the average mind, a general fall or rise in prices is as mysterious as a shooting star, and is popularly regarded as one of those "inscrutable mysteries of Providence." If the denominator decreases, prices rise, and this is supposed to be the result of a favorable "dispensation"; if the denominator increases, prices fall, and this is a judgment, "the result of the Almighty's displeasure!"

The effect of monopolizing and restricting the supply of money is, however, precisely the same, so far as it affects the purchasing power of money in relation to some one commodity, as the monopolization of that commodity. And as the "honest" money advocates make of money a commodity, the results are the same. A bushel of wheat is always a bushel of wheat, it is never two bushels. Yet we know that at one time we can purchase two bushels for the same sum that at another time we pay for one bushel. This is precisely the same with dollars. Whilst one dollar never becomes two dollars, the purchasing power of a dollar, at a particular time, has frequently been equivalent to the purchasing power of two dollars at another time; so that whilst the denominator of values, the dollar, is *nominally* invariable, *its purchasing power* varies, and the effect on prices is exactly the same as contraction or inflation. Here is the insidiousness of our present monetary system. If money were expressed in units of purchasing power, possessed by it at one particular time and place, in reference to all commodities, such a system would register variations in the commodity which circulates as money. Then the general rise or fall of prices would be shown in the denominator. But as the dollar or sovereign is the standard at all times, its fluctuations are registered in commodities, and instead of the dollar rising and falling, to the public it appears that it is commodities that are

fluctuating, and that these fluctuations are due to the commodities themselves.

In the price form, therefore, the denominator is always APPARENTLY constant. It is always represented by one dollar, or numerically 1.00. *It is the numerators, the commodities that are seen to undergo the change.* Thus, tea drops from 60 cents to 30 cents per pound, and wheat from 75 cents to 37½ cents per bushel, whereas, as a matter of fact, these commodities have probably never changed one iota under the influence of supply and demand.

Instead of the price-form appearing, as shewn on page 162, where the purchasing power of the dollar has increased, thus:—

Tea	Wheat	Iron	Silver
.60	.75	25.00	.90
	2.00		

it is always represented thus:—

Tea	Wheat	Iron	Silver
.30	37½	12.50	.45
	1.00		

Now the determinant of value is, as we saw when discussing the subject of value, the relation of supply to demand; and the causes of variations in the values of commodities, are variations in the supply of or the demand for commodities themselves. Where the demand for a thing increases, the supply remaining constant, the exchange power increases; where it decreases, its exchange power decreases. And *vice versa*, when the supply increases, the demand

remaining constant, the exchange power decreases; and when the supply decreases, the exchange power increases.

Where the supply is kept always in excess of the demand, there is no variation. Where the supply is unlimited in comparison to the demand, values disappear.

Under our present system dollars and pounds are commodities, and are influenced by the laws of supply and demand. When the supply of dollars is constant and the demand increases, the purchasing power of dollars increases, and *vice versa*. When the supply of dollars is diminished by hoarding or by "cornering" gold, the purchasing power of dollars increases. Now money, being a species of credit, the artificial restriction of the supply of money naturally tends to bring into use personal credit. The natural wants of mankind are not to be suppressed or confined by any artificial restriction, such as a "specie basis," or a "legal tender" act; hence, through the limitation of that which should be unrestricted, a substitute is adopted and "enormous amounts of credits are piled up." The effect of this substitute is the same as an increase in the volume of money, and its tendency is to lessen its purchasing power. Further, the destruction of credit, which occurs every now and again, is precisely similar in its effects to the destruction or the "cornering" of money, the purchasing power of

which instantly rises. The result is analogous to that which would occur by discovering a substitute for any commodity. The destruction of credit is similar in its effect to dumping into the ocean so much coin. The contraction of credits of three thousand millions of dollars is as disastrous to commerce and industry as the loss of that amount of money! Statesmen worry when gold leaves the country, but regard the contraction of credits with but little anxiety. The great concern of governments appears to be to facilitate the importation of gold in order to increase the volume of currency; but they are stupidly unconcerned when that which fills its place, and which is, after all, the main factor in facilitating exchange, is reduced or impaired.

It will be convenient at this place to point out the manner in which personal credit, although apparently a competitor with money, is made "its partner and associate in crime."

We have seen the effect of variation in supply and demand upon values. The greater the demand and the more restricted the supply, the greater the purchasing power of any commodity. The objects sought after in trade are, therefore, these two, viz.:—

1st. To create a demand for a commodity.

2nd. To control its supply.

Now, decreasing the supply of a thing, when demand is constant, has the same effect upon its

purchasing power as increasing the demand when the supply is constant, and *vice versa*. But if the demand can be increased and the supply suddenly decreased, the effect is enormously augmented. For instance, suppose the demand for an article, at one time, to be represented by 100, the supply being also 100; and suppose by means of an artificial substitute, demand and supply be increased to 10,000. Now by suddenly cutting off the artificial substitute, the supply is at once knocked down to 100, the demand still remaining at 10,000. The appreciation in the purchasing power of that commodity can be better imagined than described!

This is precisely the effect of credit upon money. Credit is the artificial substitute for money. (I of course refer now entirely to our present monetary system. Under a scientific system, money and credit would be synonymous.)

The demand for money is always far in excess of the supply; hence, its substitute is called into existence, the first and immediate result of which is to lessen the demand for money. Interest is less, prices are raised, and the effect similar to that of one competing commodity with another. But the commodity merchant always regards his competitor jealously and with impatience. He is ever ready to place obstacles in his path. Not so the commodity-money merchant; he looks ahead. He will even assist in "the piling up of these vast

amounts of credit," notwithstanding that his interest is temporarily cut down by doing so. So long as these credits are built upon the *specie* basis, he knows that as surely as the sun rises, they can be swept out of existence as completely as if they had never existed. The greater their amount the greater the disproportion between the actual supply and the money demand, and consequently the greater the harvest will the money merchant reap when the crash comes.

These credits being redeemable in *specie*, are found too enormous for redemption. There is not enough *specie* in the world to redeem them with. And now the operation of driving the camel through the eye of the needle begins. All that does not pass through the needle's eye, falls into the hands of the drivers.

The makers of credit find themselves in the position of the Israelites, who were compelled to make bricks without straw.

They are driven to despair. The holders of specie carefully put it under lock and key, thereby increasing an already enormous deficiency. The demand remaining what it was when credits were in existence, the supply is cut down to less than that existing before the substitute was created.

The effect of credit is, therefore, to greatly increase the purchasing power of money whenever credit is shaken.

Credit is the fertilizer that serves to ripen the

fruit which the money monopolists shake into their own hats. It produces a harvest which money alone could never produce. Credit changes the value of the denominator to an enormously greater degree than specie could possibly do.

Take the credits of Great Britain, estimated at from five to six thousand millions of pounds, whilst the legal tender in circulation is only about 120 million pounds. Supposing that only 10 per cent. of the credit is redeemable in money. There are then 600 million pounds of credit, and but 120 million pounds, or one-fifth the amount required, to redeem it with. Now, so long as credit is unassailed and remains intact, everything works smoothly. Credits are redeemed with credits, extensions given, and a small amount of money serves to do a vast amount of work by circulating rapidly and by making credits redeemable at different times. But let the public confidence once become shaken, or fear become general through some cause, no matter how trivial, and there is an immediate desire to have credits redeemed. Instead of redeeming them with credits, or granting extensions, every creditor insists upon cash redemption. The demand for money, heretofore satisfied with credit, is now centred on gold and will be satisfied with nothing else. Gold rises enormously; multitudes of persons are obliged to sell their goods at a sacrifice. Down come prices. Industry is paralyzed and

parliamentary and congressional committees are appointed to enquire into the causes of the disaster. Those whose system is the cause of all the trouble are consulted. With learned ignorance they propound such theories as "over-production," "over-trading," "abuse of credit," "state-bank currency," "reduction of the tariff."

Their theories are seriously considered and acted upon. The country pulls itself together, and once more commences its sisyphean task of building another gigantic pyramid with its apex for a base. Such, in brief, is a synopsis of the financial panics that periodically afflict the world and which have puzzled legislators for the past two centuries, as completely as Haley's comet puzzled Popes Callixtus and Pius II.

Such results are wholly attributable to building industry upon an insufficient and false foundation. Panics are not the results of "over-production," nor of "over-trading," nor of the "abuse of credit." Panics arise because the gold basis is too narrow and too contracted on which to build the world's industries. The building becomes top heavy. It is pushed into a position of unstable equilibrium by those who control the base, and down it comes. To say that there is general over-production or over-trading, is to say that people have more than they want, and that they are trading for amusement.

Human wants are the cause of trading, and

because of the insufficient supply of the medium of exchange, men are actually compelled to make industry top heavy and unstable.

I have shewn that money is, from the scientific standpoint, circulating credit, and credits that are not circulating are termed stationary credits. Now the channel of circulation is filled with these forms of credit, and in order that trade and commerce should be facilitated, it is essential that the material with which the channel is filled, be kept in circulation.

Like blood in the human body, it must circulate freely and unhindered to keep trade in a healthy condition.

The effect of legislation restricting monetary issues by taxation or otherwise, is to increase the amount of that class of credit which may be termed sluggish or stationary. It is circulated slowly and with difficulty. The demand for money being greater than the supply, recourse is had naturally to the medium of personal credits, which are essentially sluggish. Hence the channel of circulation becomes choked, and circulation is hampered or entirely stopped.

We have thus a further illustration of legislation defeating its own ends. Ostensibly, legal tender acts and specie bases are for the protection of society; to provide the people with what the newspapers are fond of terming "honest" money.

In suppressing State and private bank issues by taxation, the Government compels society to have recourse to a system of credit far more precarious than any State or private bank systems that ever existed. The loss occasioned by a sudden shrinkage of public credit, results in much greater evil and misery than any mere over-issues of bank notes would produce.

The end to be sought by those who would prevent a repetition of the financial and monetary disasters of the past, is to free money from the artificial and burdensome restraints with which it is encompassed; to allow the people to attend to and satisfy their own wants in regard to money as with everything else. The more plentiful the money supply, the less a baseless credit system will be used, until with an adequate supply, the system finally disappears. The solution is not to make the industrial and commercial structure less bulky, but to broaden the foundation; to make the base proportional to the edifice. To use our former illustration, we must stand the pyramid on its base if we would make it stable. Those who control the apex may then do their worst, they can never overturn business.

Commerce thus assumes its rightful position and becomes absolutely safe.

Chapter XV.
RATIONAL AND IRRATIONAL BANKING

"The peculiar essence of our banking system is an unprecedented trust between man and man, and when that trust is much weakened by hidden causes, a small accident may greatly hurt it, and a great accident for a moment may almost destroy it."

WALTER BAGEHOT, in "Lombard Street."

THE practice of modern banking may be instanced as further proof of the contention made in the preceding chapters regarding the falseness of our current theories of finance. A system founded upon unsound theories must—sooner or later—create trouble, and conversely a system which periodically fails may be said to have a false basis.

A nation's industries necessarily depend upon its banking facilities, and it is impossible to form a just estimate of the banking system of any country without considering its effects upon and its relation to the industries and trade of that country. If ever a true history of modern banking is written it will be found to consist largely of a record of industrial failures and business disasters. There is not a bank in the world—established for any considerable period—that has not experienced difficulties threatening its stability and existence, and if custom did not prevent us from seeing things in their true light, modern banking would be regarded as both crude and dangerous in the extreme. Banking has been facetiously termed "the great confidence game," and has been odiously compared to the

art of jugglery—and certainly there is some foundation for such criticism, for when public confidence is shaken and creditors demand fulfilment of obligations, banks close their doors, since their obligations greatly exceed their powers of redemption. It is safe to say that any business man who attempted to carry on an industrial pursuit on the same principles as those followed by ordinary banks would be considered foolhardy. Take for instance a bank of deposit where deposits are received from one class of customers and loaned to another class; a comparatively small percentage of currency is retained as a reserve fund. Now, deposits are received on the understanding that they are payable on demand—on the other hand loans are made for definite periods, 10 days, 30 days, 60 days, and even longer. So long as depositors are satisfied to leave their deposits, all goes well, but a mere rumour or flurry is often quite sufficient to lead to a sudden demand for withdrawal, and then the unsafety of modern banking becomes apparent. Even the Bank of England, which is regarded as a Gibraltar of financial security, and upon the solvency of which England's commerce depends, is removed but a few degrees above the danger line upon which all other banks conduct their business. In his excellent work called "Lombard Street" Walter Bagehot says:—

"English trade has become essentially a trade on borrowed capital, and it is only by this refinement of our banking system that we are able to do the sort of

trade we do, or to get through the quantity of it." . . "There never was so much borrowed money collected in the world as is now collected in London. If any large fraction of that money really was demanded, our banking system and our industrial system too, would be in great danger." . . . "We see then that the banking reserve of the Bank of England—some £10,000,000* on an average of years now, and formerly much less—is all which is held against the liabilities of Lombard Street; and if that were all we might well be amazed at the immense amount of our debts payable on demand, and the smallness of the sum of actual money which we keep to pay them if demanded. But there is more to come. Lombard Street is not only a place requiring to keep a reserve, it is itself a place where reserves are kept. All country bankers keep their reserve in London. They only retain in each country town the minimum of cash necessary to the transaction of the current business of that country town. Long experience has told them to a nicety how much this is, and they do not waste capital and lose profit by keeping more idle. They send the money to London, invest a part of it in securities, and keep the rest of it with the bankers and the bill brokers. The habit of Scotch and Irish bankers is much the same. All their spare money is in London and is

* Since this was written the reserve of the Bank of England has been greatly increased. Considering its enormous responsibilities the present reserve even now is surely insufficient for all contingencies ! !

invested as all other London money now is; and therefore the reserve in the banking department of the Bank of England is the banking reserve not only of the Bank of England, but of all London—and not only of all London, but of all England, Ireland and Scotland too." And again, "In consequence all our credit system depends upon the Bank of England for its security. On the wisdom of the Directors of that one joint stock company it depends whether England shall be solvent or insolvent. This may seem too strong, but it is not. All banks depend on the Bank of England, and all merchants depend on some banker." In another place he says, "So far from our being able to rely on the proportional magnitude of our cash in hand, the amount of that cash is so exceedingly small that a bystander almost trembles when he compares its minuteness with the immensity of the credit which rests upon it." No greater condemnation of a system upon which the entire commerce and wealth of a nation is built could possibly be made!!

A comparison has been drawn between banking and the system upon which life insurance companies conduct their business. It is said that a bank of deposit is quite as secure as a life insurance company, and that the objection above raised regarding the dangers of modern banking apply with equal force to insurance companies. If more than a certain proportion of the holders of insurance policies should die within a given period, the effect on the companies would

be similar to a run on the bank, and insolvency would result. But consideration will shew that there is no proper analogy between the two systems. The natural love of life induces members to avoid unnecessary danger and prompts them to use every means for prolonging existence. But it is this very desire for self-preservation that often precipitates bank failures. The moment depositors believe their money to be in danger they seek to withdraw it.

It is a strange anomaly that finance, which is the life blood of trade and industry, should be conducted upon rules the very opposite of those that govern the industrial arts. In the construction of a bridge, a vessel, or a machine, provision is made that it shall withstand the greatest strains and the roughest usage to which it may be subjected, and a margin known as the "factor of safety" is allowed. Our financial system, however, seems to be based upon the opposite theory. In banking, the margin appears entirely on the other side, and may with justice be termed the "factor of unsafety." A banker's success is usually shewn by the smallness of the reserve he keeps on hand in proportion to the amount of his liabilities, since this is in reality the measure of his profits. In fact this "margin of unsafety" is, under our present system, unavoidable; for the direct object pursued by the directors of a bank is to make profits for their shareholders, and these profits are made by lending the money of depositors to whom it is returnable on

demand. For a bank to hold a reserve at all commensurate with its liabilities is pronounced a waste of capital and an unprofitable policy to shareholders, and all that is necessary—it is claimed—is to maintain the confidence of customers by making them believe that their claims can be satisfied whenever presented. The art of banking is, therefore, similar to the well-known stage device of representing an army marching. A few men, by marching in an endless chain across the stage and behind the scenes, complete the illusion; and just so long as one does not venture behind the scenes, the illusion can be maintained. So with banking. A small amount of money is made to do duty for heavy liabilities. The banker is therefore "between the devil and the deep sea." To make his position secure and satisfy depositors he must retain a reserve equal to his liabilities, in which case his profits are nil. To satisfy his shareholders he must earn dividends, and thus endanger the safety of depositors. What are known as "safe" banks strike a medium between the two and trust to luck!

It has already been shewn that our currency laws restricting the volume of currency to the amount of gold available necessitates the creation of a substitute in the shape of credit which consists in promises to pay gold, promises which at all times are precarious, and in times of trouble become impossible of fulfilment. And when Gold Standard advocates extol the English currency system they ignore altogether

the credit system which is its necessary partner, and without which English trade could not possibly be carried on.

The money of the country, scientifically speaking, includes not merely legal tender, but all forms of credit, bills of exchange, promissory notes, cheques, etc., all of which perform the money function, and it is only by viewing the question from this standpoint that we can adequately grasp the enormous risks to which trade and commerce are now subjected!

In reading works on banking the student cannot fail to notice the absence of all reference to the principal functions of money. Instead of treating money as the medium of exchange it is regarded merely as a loanable commodity. To the banker money is a commodity to be bought and sold and let out on hire. And the scarcer the supply in relation to the demand the higher the price of the loan. Hence dear money is a condition sought by the money-lender just as eagerly as the farmer desires high-priced wheat or the butcher dear meat. This is the natural result of regarding banking as a "trade" and money as a commodity. The dividends made by banking institutions are of much greater importance to the banker than the growth of commerce, and there is far more commotion over the loss of £100,000 by the failure of a bank than the loss of a hundred millions by failures in trade. The evils arising from this system are simply incalculable. It is the parent of industrial troubles, stagnation

and bankruptcy. That banking should be subordinate to trade and to its necessities does not seem to have occurred to writers on this subject, and yet this is its true and proper position. A rational banking system would be adjustable and subservient to the needs of commerce, but our present system is quite the reverse. Commerce is compelled to adjust itself to certain rigid rules formulated a generation ago, when business was a very insignificant affair compared to what it is to-day. The question then naturally arises, can a banking system be devised which will facilitate commerce, and enable business to proceed without the possibility of a panic arising to endanger its stability? Can such a system be established which will enable wealth producers to exchange their products fairly and without the dangers and evils enumerated? Unquestionably yes. Ricardo has said, "On extraordinary occasions a general panic may seize the country when everyone becomes desirous of possessing himself of the precious metals as the most convenient mode of realizing or concealing his property—against such panics banks have no security on any system." And this undoubtedly is true so long as laws give to the precious metals the sole and supreme privilege of functioning as legal tender. As we have already seen, panics arise from knowledge of the fact or fear that banks have undertaken obligations which they are unable to fulfil, and it is this knowledge or fear which leads depositors to seek to withdraw their holdings. The following

principles should underlie sound banking: first, bank notes should be issued against wealth and not against debt; second, banks should not undertake obligations which they cannot always perform; third, banks should be established and operated for the convenience and assistance of commerce, not for enriching bankers and shareholders. These conditions are admirably fulfilled in what is known as the Mutual Banking System. A mutual bank is one established by commercial men for the purpose of issuing notes or paper money against satisfactory credit, or wealth, and for the sole purpose of facilitating trade. There is no bank stock, and there are therefore no dividends. Any member of a community can become a member of the bank, providing his credit is good and he has wealth suitable for monetization. No regular rate of interest is exacted for monetizing wealth or for borrowed money, but charges sufficient to defray the running expenses of the bank, and for insurance, are made.

Every member of the bank agrees to accept its notes in payment for services and goods. In case of loans, the bank is forbidden to lend more than a fixed proportion of the wealth pledged—say 25 per cent. —leaving an ample margin for fluctuations. The notes are made returnable within a definite period, and if desired they can be again issued after a further valuation of the property has been made. Return of the bank notes releases the property pledged. Such notes issued against wealth and with a proper margin for

fluctuations in price, are a perfectly safe form of money, and it is evident that no panic can arise under such a system. For the bank is merely the holder of wealth pledged for the return of notes issued. Mutual Banking is exceedingly simple and by no means new—it was proposed by Beck in England, Proudhon in France, and Col. Greene in the United States, many years ago. Beck suggested the application of what is known as "credit in account," whilst Proudhon advocated generalizing the "bill of exchange" and using this as the money token, but neither of these advocates were allowed to put their ideas into practice for a time sufficient to demonstrate their practicability. Proudhon's system was peremptorily stopped by the French Government, and its author thrown into prison (a simple and summary method adopted by Governments for demonstrating the impracticability of economic innovations). The unsafety of modern banking is in fact wholly due to the restrictions and interference of Governments in matters which properly belong to the industrial and commercial branch of society.

The monetary system advocated by Col. Greene, in a pamphlet published by "The New England Labour Reform League," contains, however, a very serious fallacy, which if practised would lead to all the disasters already enumerated. Col. Greene insists that a given weight of some commodity (gold or silver) must be employed as a "standard of value,"

and that paper money issued by the mutual bank must always bear a fixed relation to this amount of specie. The contention of Col. Greene and his disciples is, that the evils of a specie currency result from the specie basis, *i.e.* agreeing to redeem paper money in specie. They contend that a promise of specie redemption is not necessary in order to maintain mutual notes at a parity with gold or silver. In other words, they insist upon retaining the so called "standard" and abolishing the basis. But it is evident that the one necessitates the other. To say that a paper dollar is on a par with gold is merely another way of stating that this piece of paper will exchange in the market for the legally fixed weight of gold which is made equivalent to the dollar, viz., 23·22 grains. And it remains at par only so long as this exchange can be effected at the desire or on demand of the holder of the paper dollar. But what guarantee has the holder of a mutual bank note that it will always remain at par with gold? Col. Greene maintained that the mere agreement of the members of the bank to accept its notes always in lieu of gold would be sufficient to maintain the parity.

Now mutual banking—to be successful—must provide for the accommodation of the members of all branches of industry, including jewellers and dealers in specie. A guarantee from this class would therefore be needed to always accept mutual notes at a fixed ratio with gold. In other words, it would involve a promise of redemption in gold on the part of

its dealers. The only difference then between Greene's Bank and a specie paying bank, is that in the latter the bank promises gold redemption, in the former individuals would be required to do so. But why should gold merchants agree to accept mutual notes always at a fixed ratio with their commodity, any more than the butchers, bakers, farmers, and other producers at some predetermined ratio for their products? The idea is preposterous. On the other hand, assuming that the mutual bank excludes specie dealers from its field of operations, what sense is there in requiring members to agree to accept notes in lieu of and as an equivalent for a certain commodity which—as Col. Greene intimates—they do not need?

The demand for money is one thing. The demand for a commodity is another. And why people should seek to tie together totally different, independent desires is incomprehensible.

The purchasing power of gold is due to two causes. These are, first and principally the privilege accorded it by law of functioning as legal tender and as a debt-discharging instrument, and secondly, its utility in the arts. The demand for a debt-paying instrument is an almost unlimited demand and is now centred upon gold, solely because laws have been passed by many nations giving it this privilege and giving it to no other commodity. The demand for this instrument is wholly independent of the material

of which it is composed, and hence paper functions as a substitute for gold—a sufficient demonstration of the fact that gold is altogether unessential for currency purposes, and that but for laws, it would never be used outside of the Arts.

The demand for gold in the Arts is quite distinct from the demand for it as legal tender. The former demand is due solely to natural causes, and can be satisfied by no artificial substitute, such as paper. It is in the Arts that the qualities of gold—ductility, malleability, non-corrosiveness, etc.,—lead to a genuine demand for this particular metal, since it can be satisfied only by something possessing these qualities. But a debt-paying instrument requires no such qualities as those pertaining to gold. "General purchasing power" is the only attribute that is needed to make an instrument effective as money. The fundamental error of Greene and his followers, is in regarding value as a positive quantity, and as having an objective existence. This fallacy pertains to the "intrinsic value" theory, a theory long since exploded. Had Col. Greene perceived that value is merely a relation of quantities—expressed by a numerical ratio—he would have realised the absurdity of the expression "standard of value." Considering that the world's present stock of gold held for coinage purpose is sufficient to supply the demand in the Arts—at the present rate—for more that 50 years, it is quite certain that the high price of gold is due

almost entirely to its legally acquired money functions.

Take an analogy. Supposing a substitute for wheat was discovered which could be furnished for 1/100th part of its cost, a substitute which proved as nutritious, as healthful, and as palatable as wheat. It is certain that the price of wheat would fall so low as to make its production an unprofitable industry. But if a law were passed compelling every adult to eat so much wheaten bread per day—in spite of the cheapness and efficacy of the substitute—the price of wheat could be maintained at a very high level.

It is strange that the one system which, above all others, requires the co-operation of all the members of society for its very existence, should have been so overlooked by the organisers of co-operative societies. These societies have been engaged for many years in the production and distribution of commodities, and with very satisfactory economic results; but the control of the medium of exchange has been left in the hands of private institutions which exist and are conducted entirely for personal gain, although their stock-in-trade is furnished wholly by the community. Far greater benefits are to be derived by co-operative societies adding the function of banking to their businesses—that is, the function of issuing paper money against wealth as here suggested in the form of a mutual bank. Naturally many objections will be

raised to the introduction of such a system—those who live on usury and the sale of credit will obviously object to any plan which would rob them of their gains. The dangers of a paper currency will be pointed out, and the well-known examples of "Lawism" and the "French Assignats" cited as warnings. Those who make use of these illustrations forget that the disasters resulting from such paper-money experiments have been due to promises or attempts to redeem such paper in specie, in seeking to maintain a parity between the paper and gold or silver, or in issuing it without any basis of wealth. The money of a mutual bank requires no redemption, as it is issued against wealth itself. The wealth is to be redeemed by the return of the notes. Moreover, there would be no demand to maintain paper at any fixed ratio with any single commodity. The existence of baseless credit money is due almost entirely to the "gold standard" theory and the laws restricting the issuance of sound currency. The baneful effects of this credit money are far greater and more pernicious than all the paper that was ever issued under Law's system.

One question will naturally arise, viz., how international banking is to be carried on in the event of the mutual system being established. It is believed by many that the gold coinage provides an international currency, and that if this were abolished international commerce would cease. International

commerce is a system of barter pure and simple, and there is no such thing as an international currency. Gold is used as a commodity to adjust balances, and there is no reason why a mutual bank in one country should not balance accounts with a foreign bank in specie, as is done at the present time. There is no fixed ratio of exchange between the money of any two countries, whether they use the gold "standard" or not. Gold is bought and sold by weight, and does not function as money internationally. Money is always local in its circulation, never universal, and when one exchanges the money of one country for that of another one is simply practising barter. Whilst the establishment of a universal currency would in many ways be a convenience, it is not an absolute necessity, and there is no greater reason for establishing an international currency than an international postage stamp, or an international system of weights and measures.

Chapter XVI.

INTEREST

NO subject within the field of Economic Science has excited so prolonged, so universal, or such bitter contention as that with which we have now to deal, nor have the effects of any Economic system upon social life and civilization been more marked.

Originally denounced as immoral by the founders of the Christian Church, and legally prohibited for many centuries, it has become the very foundation upon which our so-called Christian Civilization is built. The practice of charging for the loan—formerly termed Usury—was expressly forbidden among the Jews by the laws of Moses. Permission to exact usury from the Gentiles was, however, granted—a permission of which the Jews were not slow to avail themselves, and to which is attributable more than to any other cause the terrible persecutions they underwent during the Middle Ages, as well as in later times.

Usury, or, as it is now designated, Interest, was condemned by ancient writers like Plato and Aristotle, the Mahommedan Koran forbade it, and under the Christian Church's influence the severest penalties were inflicted by States against usurers. Even now the system is controlled in most countries by special legislation which limits the percentage which may be charged for the loan.

Notwithstanding that interest is now legitimised

universally, there still remains considerable prejudice and a feeling that it is based upon injustice.

Quite recently, during the trial of a famous libel suit in the Courts of France, an eminent advocate (for the defence) spoke as follows:—

"St. Gregory of Nyssa, the immortal thinker of the fourth century, wrote these lines:—

"'He who would give the name of robbery or 'parricide to the iniquitous invention of interest would 'not be very far from the truth. What, indeed, does 'it signify if you have made yourselves masters of the 'wealth of another by scaling walls or by killing 'passers-by, or if you have acquired what belongs to 'you by the merciless method of the loan?'

"If anyone had prophesied to St. Gregory as follows:—

"'A day will come when what thou treatest as 'robbery and assassination will become the law of 'the world, and when an Attorney-General will 'indict in an assize court the writers who share thy 'opinion. The whole of society will be founded upon 'usury. They will build a temple which they will call 'a Stock Exchange. This temple will fill the place of 'thy cathedrals, even as thy cathedrals have filled the 'place of the temple of Venus or Jupiter. The priests 'serving in this new temple will be called bankers, 'stockbrokers and financiers. They will swindle 'others out of all the gold that will insure to them 'omnipotence. They will buy everything that is

'buyable, and some of the things that are not. And 'vain revolts against their frightful empire will serve 'only to make more manifest its terrible solidity!'

"If anyone had prophesied that to St. Gregory, St. Gregory, who believed in God, would have joined his hands and cried: 'Lord, deliver us from such a 'moral malady!'

"The malady has run its course."*

The problem of interest is clearly stated by the Austrian Economist, Professor Böhm-Bawerke, in his great work on Capital and Interest (I quote from Professor William Smart's translation):—

"It is generally possible for anyone who owns capital to obtain from it a permanent net income, called Interest.

"This income is distinguished by certain notable characteristics. It owes its existence to no personal activity of the capitalist, and flows in to him even where he has not moved a finger in its making. Consequently it seems in a peculiar sense to spring from capital, or, to use a very old metaphor, to be begotten of it. It may be obtained from any capital, no matter what be the kind of goods of which the capital consists; from goods that are barren as well as from those that are naturally fruitful; from perishable as well as from durable goods; from goods that can be replaced, and from goods that cannot be replaced; from money as well as from commodities.

* M. de St. Audan's Defence of Jean Grave.

And, finally, it flows in to the capitalist without ever exhausting the capital from which it comes, and therefore, without any necessary limit to its continuance. It is, if one may use such an expression about mundane things, capable of an everlasting life.

"Thus it is that the phenomenon of interest, as a whole, presents the remarkable picture of a lifeless thing producing an everlasting and inexhaustible supply of goods. And this remarkable phenomenon appears in economic life with such perfect regularity that the very conception of capital has not infrequently been based on it.

"Whence and why does the capitalist, without personally exerting himself, obtain this endless flow of wealth?

"These words contain the theoretical problem of interest."

After exposing every theory hitherto advanced in favor and against interest to the most searching and merciless criticism, he concludes that interest is just, because "*The loan is a real exchange of present goods against future goods.* Present goods invariably possess a greater value than future goods of the same number and kind, and therefore a definite sum of present goods can, as a rule, only be purchased by a larger sum of future goods. Present goods possess an agio in future goods. This agio is interest. It is not a separate equivalent for a separate and durable use of the loaned goods, for that is inconceivable; it is a part

equivalent of the loaned sum, kept separate for practical reasons. The replacement of the capital plus the interest constitutes the full equivalent."

In short, a loan transaction may be represented thus: $A = (A + \triangle A)\ t$, where $A =$ the sum loaned $=$ present goods: $t =$ time of maturity of loan. $\triangle A =$ increment of $A =$ interest.

In spite of the elaborate defence of interest by the great Austrian Economist, I do not think the last word has been said on this subject, nor do I believe its apologists have yet rendered the system invulnerable to attack. The main contention they make as shewing the justice of interest, is that capital assists in production, rendering labor more productive, and hence capital is clearly entitled to a return for its use. And since in the hands of the owner it is likewise productive, and he is enabled to get a return (called natural interest) by using it himself, he is naturally justified in demanding a return equivalent to this. At first sight this seems plausible enough; but loans are not made from capital which its owners can themselves use profitably. It is surplus wealth that is usually put out at interest.

Consideration of certain examples given by Economists to illustrate the origin of interest will make this clearer: take for instance the well-known, oft-quoted, illustration of Bastiat.

The story concerns two carpenters, James and William, one of whom, at the expense of ten days'

labor, produces capital in the shape of a plane. The other, for some unaccountable reason, instead of making a plane, borrows his neighbour's, proposing at the end of twelve months to return him a new one. To this James, the capitalist, objects, on the ground that by lending it he deprives himself of the advantage its use affords in lightening his toil, and for which he is entitled to compensation over and above the return of a new plane. He demands, additional to the new plane, a plank. The agreement is concluded, and at the end of the year James receives a plane and a plank. He lends the plane again for another year, receiving another plane and plank, and continues to lend, year after year, until his son becomes possessed of the plane, and he in turn acts the part of capitalist by lending the plane on interest. This annual gift of a plank is called by economists a natural and just remuneration for the "power which exists in the tool to increase the productiveness of labor." William, the borrower, is said to be no worse off than if he had not borrowed the plane, since its use has made his labor more productive. This is substantially the celebrated argument of Bastiat, that has been cited thousands of times as a clinching demonstration of the justice of usury.

The answer which the opponent of interest would naturally make to this illustration is that it lacks probability. Why should James lend the only plane he has? He made it to use. What is he going to

do without it? Make another? Then who supports him while he is making planes? Again, William is also a plane maker, since he must make and return a new one at the end of the year. Why does he not make one at the beginning of the year and avoid borrowing? Why cannot William turn capitalist? The illustration seems absurd on its very face. Men do not lend that for which they have themselves immediate use. It is *surplus* wealth that is converted into capital, not that necessary for immediate consumption. To make the story analogous to that which it is intended to illustrate, James should have at least two or more surplus planes, in which event his demand for a plank in compensation for *the loss of advantage which the use of a plane affords him*, is nonsense. He is merely lending that which he has no use for; hence, the act of lending entails neither loss, deprivation, nor inconvenience of any sort. He gets a new plane back, and is no worse off at the end of the year for having made the loan. On the contrary, he is much better off—better in several ways. First, in receiving a new plane he preserves his wealth, which is naturally perishable. Were he to refuse to lend it, it would eventually deteriorate. The wood might warp and split, the steel rust, and ultimately the plane become useless. Secondly, by lending, he helps William. William is a member of society, just as James is, and the condition of society is dependent upon its members. The more William advances the better for society,

and the better for James. The condition of individuals affects society, and the condition of society reacts on all its members. This fact many writers have hitherto been blinded to, notwithstanding its vast economic importance. Current political economy seems to lose sight of the fact that under the terms capital and labor, it is really dealing with flesh and blood, and not with machines.

It is the contention of Economists that if interest were abolished the production of capital would be curtailed—a contention that appears to me unsound. The contrary seems to me to be true. The great desire on the part of mankind is to escape from that condition which renders labor obligatory. Now the system of interest offers a means by which producers may retire from the field of production.

Universally, there is a struggle on the part of wealth producers to put by sufficient capital, the interest upon which will enable them to live comfortably without work. The higher the rate of interest, the less capital it is necessary to create to achieve this end, and *vice versa*. Therefore, the lower the rate of interest, the fewer will be those able to retire from wealth production, and the greater will be the production of capital. If interest were abolished, the desire to escape the irksomeness of toil would be none the less keen, and since this escape would depend upon the creation of sufficient wealth for support by the consumption of principal, it seems to me apparent

that the incentive to wealth production would be greater without interest than with it.

It is also taken for granted that loans would cease if interest were abolished. Why should a man lend his wealth without having some benefit over and above the mere return of the wealth loaned? The answer to this is that wealth is perishable. If we confine ourselves to the consideration of commodities—omitting those forms of wealth included under land, natural opportunities, money, bonds and legal claims—we shall see that wealth is naturally and inevitably perishable. The vast bulk of wealth is consumed soon after it is produced. Imagine, for the sake of argument, a society where the capitalist's wealth consisted wholly of perishable commodities. Knowing that such wealth would decay and disappear within a certain time, would not an offer to take it and return its equivalent at some future time, or say in instalments paid regularly at the end of certain periods, be readily accepted without interest? In fact, would not such an offer meet with, and merit, a reward? Surely the man who saves for me wealth which otherwise would perish, is entitled to a remuneration. Under modern conditions the loan, however, takes a very different form.

By virtue of certain legal enactments, wealth is, as stated by Professor Böhm-Bowerke, immortalised. By a system of exchange a man's surplus commodities are converted into money, and when capital is

borrowed it usually takes the money form, so that perishable wealth is transformed into an order on wealth producers at all future times to reproduce wealth in any form, and at any time the holder may choose. To negotiate a loan the modern industrian has recourse to the bank, and it is in this direction that our present investigation must be conducted.

When a merchant seeks to negotiate a loan of money from a bank he must first provide security, either in the form of collateral or personal credit for the return of the money, so that the element of risk is eliminated; in fact, it is customary for banks to exact a deposit of collateral of much greater worth than the amount of the loan. Having provided sufficient wealth to guarantee the return of the sum borrowed, he has further to agree to pay a percentage as interest. Let us take a special case. A manufacturer, having been informed that there was likely to be a strike amongst the coal miners, and, in consequence, the price of coal would advance, he determined to lay in a good supply. He applied to his bank for the loan of £5,000 for six months. He offered as security for the loan, a mortgage worth £10,000 on an improved property in a neighbourhood where rents were advancing; the loan was made, and at the end of the six months he returned the £5,000, plus £100 interest. The information regarding the strike proved to be erroneous, and in place of the price of coal advancing as he expected, it actually declined, and he found he

had paid £500 more than if he had waited and bought it as required. He therefore lost not only this amount and the interest on the loan, but had to pay for the storage of some of the coal during this period. The question arises, what did the bank give in exchange for the £100? It made no sacrifice, nor underwent any risk, since it held the power to convert the amount covered by the mortgage into currency. The wealth of the bank was not decreased by one penny in making the loan. What justification was there in asking a sum for the loan of the money? This is the real interest problem under modern industrial conditions.

Economists would say that the bank was deprived of the use of the money during the six months which it might have profitably invested to bring a return. It is customary in giving illustrations and examples on this subject for writers to say that the borrower gained considerably by the use of the loan, and then to add that the bank might have placed the money in the same investment, and made all the profit, and that the payment of interest is only fair, since without the loan the borrower could not have made the profit. But the instances of such investments being unprofitable are by no means uncommon—in fact, it is questionable whether fully one-half are not so, and, if the bankers undertook to direct the investment, it is doubtful whether they would be any more successful than the average merchant and manufacturer.

The correct answer as to why interest is chargeable

and obtainable on loans of the nature similar to the example given, is because the demand for money is practically always in excess of the supply—a condition existing by virtue of special legislation. The purchase of commodities and the payment of debts are effected in the legalised medium of exchanges, and mortgages are not legalised means of payment, whilst bank notes and coin are, and so the holder of mortgages and every other form of wealth except gold and government or bank money, is unable to pay his debts unless he can exchange his wealth for money by means either of a sale or the loan. *The loan is really an exchange of stationary for circulating credit, of special for general purchasing power, and interest is a tax for the privilege of converting the one into the other.* All the bank has done was to enable the manufacturer to *fluidize* his wealth. Governments having conferred this privilege upon one form of wealth, gold, has thus given the power of those controlling this metal to exact a tax upon all other wealth. *Interest is therefore the price of a legally created monopoly.*

The money loan is not "an exchange of present goods for future goods," but merely an exchange of one form of purchasing power for another. As I have shewn in previous chapters, the general purchasing power of legal tender is a legally acquired privilege, whilst purchasing power comes from and is due to Society. It is not due to anything existing in any metal or instrument, nor to any quality possessed by

it, except the function granted by legislation of paying debts. *Money is essentially a social instrument*, and interest is the price paid by borrowers for the privilege given to gold and bank notes. The merchant who bought the coal would certainly not have paid interest for the £5,000 if mortgages had the same rights of monetisation as gold.

After all, the judgment which must eventually be passed upon interest as a legalised system will depend upon its social results. Is it socially beneficial or injurious? Does it make for the prosperity and happiness of nations, or for their misery and destruction? If the former, why have Governments interfered so often in seeking to control and limit interest charges? And if five per cent. is a national blessing, why is not ten per cent. a still greater advantage? Governments have not sought—except in a few isolated cases—to limit rent charges, nor have they stipulated to what extent a merchant may make profits in trade.

Why has this one system been of so much greater solicitation on the part of governors, rulers, and legislatures, than the other factors of distribution, rent, wages and profits? Why have the religions of nearly all lands denounced and forbidden it?

It seems to me that experience must have taught nations in the past that usury is fraught with danger, and only possible within strictly defined limits. Money is the life-blood of trade, and therefore of wealth

production, and anything that interferes with its free circulation must be as serious a menace to a nation's welfare, as interference with the circulation of the blood would be to the life of a human being.

Interest is necessarily a tax upon production—for surely, if a nation could procure for its trade a non-interest bearing currency, it would be in a better and more prosperous condition than where a tax is imposed? Money being the tool of trade, the less one has to pay for the use of this tool the greater the wealth he will be able to secure to himself. The rate of interest, in fact, determines often whether an industry can be worked profitably or not. Nay more, it determines whether nations shall prosper or become bankrupt.

Startling as it may appear, it is nevertheless an easily demonstrated fact, that under the current rates of interest, the debtor classes of nearly all civilised nations are rushing into bankruptcy. The fact is that the wealth production of nations cannot keep pace for long with their interest charges. In fact, interest as a universal working principle is—at all ordinary rates—an impossibility. Five per cent. interest means a doubling of wealth every twenty years. At compound interest it is doubled in about $14\frac{1}{4}$ years. Let us take a broad survey of this question.

Suppose the Pilgrim Fathers had invested the little capital they brought from the old world on a five per cent. usury basis, the people of this country* would owe them more than all the wealth they possess.

* United States.

"Suppose," says Proudhon,* "that a man in the reign of St. Louis had borrowed 100 francs, and had refused—he and his heirs after him—to return it. Even though it were known that the said heirs were not the rightful possessors, and that prescription had been interrupted always at the right moment, nevertheless, by our laws, the last heir would be obliged to return the 100 francs with interest, and interest on interest, which in all would amount to 107,854,010,777,600 francs; which is 2,696 times the capital of France, or more than twenty times the value of the terrestrial globe!"

"Suppose, when Virginia was settled in 1607, England had sold to the first settlers the whole of the United States for $1,000 and had taken a mortgage for this sum covering the whole property, but instead of paying the interest yearly at seven per cent., the settlers had agreed to take up their bonds at the end of every six months and add in the interest. Allow the $1,000 and the accruing interest to remain outstanding until 1860, and then become due. Although our prosperity has far surpassed that of any other nation, yet our property of every description would not pay the debt. Interest at seven per cent. doubles the principal in ten years and one month. In 100 years and ten months the debt would have amounted to $1,024,900; and in 201 years and eight months to $1,048,576,000. Add

* "What is Property?" Humboldt Series.

fifty years and five months to 1859, and the sum would amount to $33,554,432,000.*

But it is not necessary to go back so many years to show the impossibility of interest as a universal working principle. Usury is always increasing more rapidly than wealth. It knows no period of depression, no time of stagnation, no failure of crops, no unfortunate speculations, no condition of ill-health and inability to produce. It takes no holiday, and refuses even to keep the Sabbath. It forever goes on as regular as time, and as relentlessly as gravitation, counting and adding to men's burdens, piling them higher and higher, until the loan becomes too great, and there is a financial crash. No system of production has yet been discovered capable of maintaining this regular, never-failing supply which usury demands.

All forms of wealth production are fitful, irregular, and subject to fluctuations. One season's harvests are abundant and the next a failure. This year's fruit crop may prove enormous, and the next spring's frosts may kill all the blossoms. The consequence is that though for a limited period production may make rapid progress, yet, like the hare and the tortoise, usury invariably overtakes and keeps ahead of production.

"The borrowed capital of the United States," says a writer in the *Arena*,† "claims more in remuneration

* "Capital and Interest." Kellogg.
† I. W. Bennett in March No. 1894.

than the country can produce. Every dollar invested in business claims a return called interest. Every dollar representing debts unpaid, claims a like remuneration. This must all be paid out of the production of each year, and from each year's product men must be fed and clothed and sheltered. The wealth of the world must be kept up. Buildings, machinery, everything must be kept in repair; and improvements for use in the future must be taken from the stock of the present. There is not wealth enough to meet all these obligations, and the business of the world must go into the hands of a receiver every now and then, so that a new start in business may be made. The country, with all its allied industries, is analogous to a mammoth business concern. When it contracts greater liabilities than it can meet it fails, and we have a financial panic.

"This state of bankruptcy is chronic. Counting everything, the liabilities of the country are always greater than its assets. The industrial world is always in a state of potential bankruptcy, but credit tends to keep it out of the hands of a receiver. Then the same persons are in part debtors and creditors, and this, with our frequent liquidations, aids in keeping us from continual financial panic. Any disturbing of credit precipitates a crisis.

"An odd proposition, but one capable of mathematical demonstration, is that the very foundation

principles of our industrial system lead us to recognize obligations which we can never pay. A simple, specific statement of what they are compels us to admit that they are too large to meet.

"The present wealth of the United States may be placed in round numbers at $72,000,000,000. That fully eighty per cent. of this sum pays interest may be verified by any person who cares to give the subject thought. If any of the money in business bears interest, all money invested in business must likewise bear interest, otherwise nobody would assume business risks. But we may arrive at the same conclusion by a process quite different.

"Something like eighty per cent. of the wealth of the country is in the hands of about 250,000 persons, or about one two-hundred-fortieth of the population. This excludes the wealth of well-to-do farmers and merchants; and it goes without saying that nine-tenths of this wealth held by the immensely rich is interest-bearing. Nearly all of it is lent, or if not lent out is invested in some business where interest on the money invested is added to the return or profits of the undertakers. The wealth in the hands of farmers and merchants is paying interest on all that is not used for the personal wants of themselves and their families; and even many of the homesteads of the country are paying interest. . . .

"At least one half of such wealth is interest-bearing. An examination of the mortgage lists of the

several States will more than bear out this estimate. We are, then, paying fixed charges, as the railroads put it, on about $55,000,000,000 of the country's wealth. The net rate will average five per cent.; and taking into consideration commissions and other charges, six per cent. is a low estimate of the gross rate. The interest on $55,000,000,000 at six per cent. is $3,300,000,000 per year. To get the average interest charges for the last decade we must take the average of interest-paying capital, which is about $50,000,000,000. We have, then, an average yearly interest of $3,000,000,000, a sum which more than absorbs the entire yearly increase of wealth in the United States. During the last decade the wealth of this country has increased about $22,000,000,000.

"During the same period the interest charges were $30,000,000,000. Adding but the single item of interest on personal business obligations to the standing debt of the people, the assets of the country's citizens will, in the short period of ten years, fall $8,000,000,000 below their liabilities. The principal falls due in that time, and the business of the country, if fixed in the hands, would bankrupt in that time. It does actually feel the shock. But the fact that many persons are creditors as well as debtors, and the debtors and creditors change places, puts off the final accounting. The tendency of the enormous fixed charges on business is to amass the wealth of the country in the hands of large property owners, who are almost exclusively creditors.

"The mightier the fortune, the more interest it draws and the more exempt it is from the dangers of speculation.

"Fortunes go on piling up under the laws of interest, and after all checks and counter-tendencies are allowed for, the country has a panic—becomes bankrupt—every twenty years.

"There is a well-defined financial flurry of more or less violence, every decade, or even oftener. The fact is that whenever the creditor class demands its money there is a panic, for there is not money enough in the country to satisfy the demand, and all property must be turned over to meet liabilities. Indeed, the cash in the country is principally in the hands of the creditor class, having piled up there under the laws of interest.

"During times of confidence business is kept moving by a shifting of liabilities, but in times of doubt and uncertainty, from whatever cause brought about, the business of the country finds it impossible to meet its obligations and is obliged to file into bankruptcy. The cleverest of speculators cannot long keep up their business by borrowing from one to pay another, unless debts are very small as compared with the capital invested. Just so the business of the country, taken as a whole—the piling up of debts always ends in collapse. It is nonsense to say that want of confidence is the cause. Unless the ground principles of business produce instability, want of

confidence can have no effect. Men realize that the business of the world cannot pay its debts, and therefore lose confidence."

Now, a scientific principle is one which is universally applicable to the phenomena with which it deals. The greater the field over which it operates, the more is its truth and exactness established. Interest, as we have seen, becomes impossible as soon as applied universally or over a considerable period. It is only applicable on a small scale or for a limited period.

Every certain period there is a universal breakdown; panics and bankruptcy become world-wide; interest-bearing wealth is swept away, and equilibrium is restored only after interest-bearing capital has been greatly reduced. *In fact, capital is being constantly devoured to pay interest on other capital.* Here is a builder whose vacant house refuses to pay the ground rent; finally the house is seized for the rent. There, a manufacturer, unable to pay the interest on borrowed money, is compelled to assign his machinery, buildings and grounds to the usurer. This is of such ordinary and every-day occurrence that it excites no comments and scarcely any notice; yet it is only by the continual destruction of capital that rent and interest are maintained. *Wealth under usury devours itself. Startling as it may seem, it is an indisputable fact that panics, bankruptcies and failures are absolutely necessary in order to keep the system alive.*

Wealth cannot be produced at a sufficiently rapid rate to meet its demands; hence capital, after devouring its own children, devours itself. The first capital sacrificed is that which is the least strongly intrenched. It is the small capitalist who goes under first, then the next, and so on, until the wealth lent on interest is reduced to balance production. The most strongly intrenched is that which absorbs the less powerful. By this means national debts and government bonds bear interest in times of severest panics and business depression; and this is why they are considered the most desirable and safest kind of investment. Usury, like gravitation, causes large bodies to attract and eventually absorb smaller ones. The small capital of individuals is being constantly absorbed by the greater capital of corporations. This is its inevitable tendency. The forces of attraction and absorption are as strong, constant and relentless in the monetary as in the physical world.

"Usury," says Lord Bacon, "bringeth the treasure of a realm into few hands."

Usury is suicidal, and abstinence leads to death. The more abstinence is practised, the more capital is piled up; the more capital, the greater the amount swallowed by interest; the greater the volume of wealth taken on interest, the heavier the burden on labor; and the heavier the burden upon labor, the less wealth labor is capable of producing.

It seems to me therefore, when considered on

sufficiently broad grounds, interest is not a desirable nor a socially beneficial institution. It leads to bankruptcy, and is the parent of those financial disturbances which some writers have ridiculously attributed to sun spots. It forces the industrial world into liquidation every few years. It has created and perpetuated an idle rich class, which, as Professor Cairnes asserted, "is a formidable obstacle to economic laws, and from the existence of which no public benefit of any kind arises."

Finally, as a universal principle it is impossible.

Chapter XVII.

CONCLUSION

"The time has come for the wise to choose their course, and prepare for reconstruction."—PROUDHON.

WE have still to consider the second object of Political Economy as defined by Adam Smith, viz.:—"To supply the State or Commonwealth with a revenue sufficient for the public services." This subject should properly be treated under the head of taxation, but as this would carry us beyond the immediate scope of our investigation, I shall merely consider it in its bearings on the money question.

The debts created by Governments throughout the world are so gigantic as to be practically inextinguishable, and no one can contemplate without a shudder the condition of future generations who must inherit these burdens—resulting from the ignorance and extravagance of past and present generations.

At the present time the support of the State is maintained by the impost of taxes upon incomes, upon manufactures, upon imports, and in fact upon almost every article, act or process capable of supporting them. And practically the whole burden of maintaining the State is thrown upon wealth producers in such a way as to discourage production. In the event of extraordinary expenses—for waging wars, etc.—recourse is had to the loan, and the nation is bonded.

Taxes are payable in currency of the realm—in the very instrument created by the power and sanction of the State. The question will naturally arise, why—since the State has the power of creating legal tender—it does not issue the amount needed year by year and pay its debts, rather than by taking from the volume already in circulation and necessary for business? The answer is, that so long as Governments insist upon taking the commodity aspect of money, and maintain that money must be made of some particular metal, just so long must they have recourse to the present system of loans and taxes. When stripped of all the delusions surrounding the science, money is seen to be nothing more than a token, the evidence of debt, and there can certainly be no objection to the issue of such an amount as the State is in the habit of collecting annually. Suppose the annual taxes collected by a Government amount to £50,000,000; why should it not issue this amount in notes and pay its officers and servants, and, in fact, its entire expenses therefrom? So long as the notes are made receivable in payment of taxes there can be no question as to their passing current. If a Government bond is considered a valuable instrument, if the public debt is a fit and proper subject on which to base the currency, why should not the Government anticipate the debt by issuing paper money, agreeing to accept it in payment of taxes? If the one is a safe system why should not the other be? Given the power to collect

a certain sum annually, surely a Government can readily draw on this by issuing an equivalent in the form suggested.

An illustration will make this plainer. It is related that in one of the Channel Island towns, some years ago, the municipality needed a new Market House, and decided to build it without borrowing the money, and thereby creating an annual interest charge. It was proposed that the municipality should issue notes in denominations of £1 and £5 each, making them receivable for taxes. Having the power to impose the tax, the redemption of the notes was a simple matter. Tenders were received, and the successful contractor paid in the notes; the working men accepted them gladly, finding no difficulty in purchasing with them the necessities of life from the shopkeepers, who in turn received them knowing that they could again transfer them in payment of their taxes. The notes ultimately returned to the City Treasury and were destroyed. In this way, so it is stated, the Market House was built without the payment of one shilling of interest on borrowed money.

After all, does it not appear utterly indefensible for the State to be compelled to beg for the loan of a certain instrument, the power of creating which it has deliberately given away to certain privileged institutions—and often without any sort of compensation? So long as the amount of money issued by Governments is well within the maximum amount payable in

taxes I fail to see why Governments should not take advantage of this power which they possess. The advantages are obvious. In the first place it would avoid the difficulties which now arise by reason of Governments keeping locked up large sums which are taken out of circulation, thereby creating a stringency in the money market. Of late years the Treasurer of the United States has had to go to the assistance of the banks on several occasions, in order to save the nation from serious crises, owing to the large sums withdrawn from circulation by taxation, and locked up in the National Treasury. Apparently the only way in which this could be returned to the people was by the Government purchasing its own bonds before maturity, and for which it had to pay a heavy premium.

In the second place it would undoubtedly save nations much of their interest charges.

Lastly, it would, as Dr. Walker has shown in his work on "Money, Trade and Industry," give a "fillip" to business by augmenting the volume of legal tender. So long as these notes are collected in payment of taxes and so redeemed, they would undoubtedly form a safe currency and fulfil the necessary functions of money. The fact that Governments have in the past abused this practice on occasions is no reason for abandoning it altogether. Within reasonable bounds it can be used, and used to great advantage.

We have now discussed the main objects of

political economy as defined by one of its founders, and have seen the numerous fallacies underlying certain of its branches, particularly the branch known as finance, which is to-day the most important of all. What then is the remedy for the evils and difficulties described? What solution for the money problem have we to offer?

During the course of this investigation, we have seen that the one great obstacle opposing economic advancement, is law. No matter what may be the special branch of our investigation, no matter how much the righteousness and wisdom of a certain line of action may be demonstrated, in our progress we are invariably brought to a final standstill by the law-makers' edict, "Thou shalt not."

We have seen that the precariousness of supporting life, that which causes most of our anxiety, and raises the question in the minds of millions whether life is really worth living—in fact, that which necessitates economy, is the scarcity of subsistence. And we have also seen that the tendency—nay, the economic goal of civilization—is to increase these means, bringing them nearer to Nature's gifts; in the language of Adam Smith, "to enable the people to provide a plentiful revenue for themselves." In short, the object of economics is to abolish scarcity, so far as the means of living are concerned. We have also seen that the evils of our monetary system may be summed up in that one word, scarcity, a condition arising solely

from the operation of restrictive laws—laws which give to the few absolute power over the lives and fortunes of the masses. Commerce is, in fact, constantly ground between two millstones, the upper being the law compelling settlement of debts in legal tender, and the lower the law which restricts this tender to a particular commodity or certain quantity wholly insignificant in amount to meet the necessities of business.

The first step in the solution of this all-important question is to repeal laws which forbid or interfere with free banking, and which make gold or silver or any other commodity or instrument compulsory legal tender. To one who is not blinded by superstition, custom and tradition, it will appear just as unreasonable for governments to prescribe the form or method in which payments shall be made, as to set up a compulsory standard for the manufacture of boots and shoes or any other commodity. That there should be a legally constituted monetary unit—for public convenience—similar to the unit of weight, length and capacity—goes without saying. Such a unit could be the purchasing power of a pound sterling, a dollar, a franc, a mark—at a given time. Instead of being or representing a certain weight or mass of a particular commodity, such as gold, it would represent a certain fraction of all the exchangeable wealth at a given time. This fraction may be 1/1,000,000th part to-day, and 1/1,000,001th part next month, but it would always bear the same

relation to the same amount of wealth which existed at the time it was first issued. As to whether this unit shall be expressed on paper, gold, silver, copper or cabbage leaves, no government should attempt to determine.

Governments might, with equal justice, enact laws making oil the only illuminant, wood the only fuel, and steel the only material for shipbuilding. . . . The analysis of a coin has already demonstrated that whilst individuals may rightly claim ownership of the material out of which it is made, the exchange power of the coin—that which gives it the function of money—comes entirely from the community or nation at large, and no individual or firm has a right—morally speaking—to claim a monopoly of this.

To many there may appear no analogy between the issue of money and the issue of postage stamps, and yet if we examine them closely we find several points of resemblance. We must remember that money is essentially a social instrument created by society for facilitating exchange. It is society, not banking houses, that gives to gold and paper their money functions. No individual can create money. For an instrument to be money it must circulate, and in order to circulate it must have exchange power, and this power is created by the members of society accepting it in exchange for commodities and services. Money is but a means to an end, a right to demand satisfaction in commodities or services. A postage stamp is simply

evidence of a right to demand the carriage and delivery of a letter. Both are social instruments created by society for its use. Now the purchasing power of postage stamps might have been maintained as readily as the purchasing power of money, had the founders of the system adopted a similar course. For instance: suppose the Government should pass an Act limiting the production of postage stamps to a certain fixed number per annum; suppose, further, that the right to issue these stamps was given exclusively to a certain firm or company, and that the number of stamps issued was restricted to five per cent. of those required for the distribution of letters. Imagine the effect upon business! And yet it is easily seen that under such a system postage stamps would become exceedingly valuable, and dealing in them a very lucrative business. Or suppose that Rowland Hill had succeeded in getting Parliament to pass an Act prohibiting the carriage and delivery of letters except those to which had been affixed a nickel stamp, each stamp to contain so many grains of nickel. At first the number of letters delivered would have depended upon the amount of nickel available for this purpose and the frequency with which the stamps could be returned and sent out again. The next step would have been to procure an Act allowing the issue of paper stamps to represent the nickel and so save the metal from being lost in transit and from wear and tear by abrasion. The nickel

would then have been deposited in vaults, and paper stamps issued corresponding to the number of units of weight of the metal held for this purpose. The effect of this would have been first to hinder the growth of business to an enormous extent by limiting the distribution of letters, and secondly to give to nickel a much greater exchange power than it now possesses.

It would have led to severe fluctuations in business by reason of the uncertainty of the number of stamps available, and had this system been extended and made universal we should have nickel bars going from one country to another and creating the same disturbances in regard to the distribution of the mails that now exists in the money markets by reason of the imports and exports of gold.

Look at the disturbances to which business is subjected from time to time by the mere announcement of the withdrawal of so many bars of gold from one country to another! And yet that gold never enters into the production of a single commodity the exchange and distribution of which constitutes the chief part of the business of the world. Some day our descendants will wonder what form of lunacy could have prevailed which permitted men to allow their lives, their fortunes, their very existence to depend upon the possession of a metal they could neither eat, drink, nor wear (except for ostentation), and which for all practical purposes is one of the least useful of all metals!

Our laws make no provision for the creation of

money proportional to the growth of commerce, and unless fresh gold discoveries are made, credit must be extended to a much greater degree than has ever yet been contemplated. Now we are told by economists that financial crises are due to the creation of excessive amounts of credit, which cannot be redeemed; and yet, as we have seen in the previous chapter, all this is due to the very system which our bankers advocate, namely a currency based upon and redeemable in gold. The amount of wealth now created and exchanged is infinitely greater than all the gold in the world, and the basis of the exchanges of all this wealth is a comparatively small and insignificant proportion of it. The result is that the commerce of the world stands, as I have previously shewn, like a pyramid upon its apex, ready to topple and fall at the slightest tremor. Looking at the question broadly one cannot help enquiring what possible connection there can be between the demands of a medium of exchange required by the commercial world and the production of gold? Why should the world's exchanges be stimulated or debilitated by the accidents of the mining of a metal—one of the least useful of all minerals—a metal that does not enter into the manufacture or production of any of the necessaries of life? It would be just as rational for the directors of a railway to fix the number of cars to be run on their road by the number of shooting stars observed each year, as it is for a nation to limit the amount of currency to the quantity of gold

it possesses. And here it may be asked, as a matter of justice, why should freedom to monetize gold be given and the same right denied to other commodities?

Why should a privilege be conferred upon the gold miner which is denied to the silver miner, the copper miner, the agriculturist, the builder, or in fact any producer? For the privilege of "fluidizing" his wealth granted to the gold discoverer is purely artificial. He has not to seek a market for his wares for the simple reason that nearly all nations have passed laws allowing the coinage of gold at fixed rates and making such coins legal tender—a right which if granted to any other metal would immediately raise it to a similar position of importance.

The solution of the money question, like the solution of the tariff question, is to be found in the removal of all restraints which governments have placed upon exchange and its mechanism. It is, in short, but enlarging the field of human liberty. Having acknowledged the right of all men to life, we have to acknowledge their right to support life; in fact, the one implies the other. But laws that restrict trade, that interfere with the issuance of money, deny this right. "Commerce," says Proudhon, "exists only among free men." We can transpose this aphorism and assert that men are free only where commerce is free; and as we have seen, commerce is only free where the mechanism of exchange is free.

Those who see in the present system of tariffs the

evils, oppression and unjust privileges to which its operation gives rise, and who fail to perceive the inequity in a governmental control of the currency, are strangely blind to principle. Of what benefit is it to a nation to abolish its customs houses, so long as the medium of exchange is left to the control of a few government-licensed banking houses? Tariffs are taxes levied upon certain *special* commodities, and affect *special* exchanges; but a restricted currency, whether it be limited by the supply of a special commodity such as gold, or by the arbitrary rulings of a government, is a tax upon *all* exchanges, a burden placed over the *entire* field of industry. *Unrestricted commerce is impossible with a restricted currency. In other words, free trade is only possible with free banking.*

The prevailing idea that a nation's currency must be restricted in volume, is entirely due to the fallacy that money is necessarily something valuable; or, as it is commonly stated, money must be "intrinsically valuable"—a fallacy which, as we have already seen, is attributable to a false conception of the term value. Money is not, scientifically speaking, a thing of value; it is not wealth. It is the symbol of wealth, the evidence of debt, a convenient means of expressing the exchange relations of commodities.

And now let us see the practical result of abolishing laws which maintain the so-called "standard of value." The one great result would be to divorce money from its alliance with the "precious" metals. The plea urged

by economists and legislators for basing money upon specie, is that it is necessary to do so in order that money may perform the function of a "standard of value." Abolition of this so-called function removes at once all necessity and every excuse for the specie basis. The question arises, what then will take its place? What will the monetary system be? To begin with, the denomination would be the same. The dollar or pound will still remain the monetary unit; but instead of being determined by a certain fixed weight of gold, it will simply be an ideal unit of purchasing power. It would represent no fixed amount or quantity of any particular commodity. It would, however, represent a certain fixed proportion of all the exchangeable wealth of a community at a given time. Its power would be represented in all commodities. The market reports would be printed in similar terms as now, the only difference being that prices of commodities would not be subjected to the fluctuations of gold or silver. These metals might be hoarded, exported, imported, cornered or thrown upon the market with the utmost impunity, without affecting the prices of any other commodities in the slightest degree. Every commodity would then stand upon its own base. A general fall or rise in prices would be utterly impossible. Under our present system, the price of every commodity is dependent, first, upon the supply of and demand for commodities themselves; and second, upon the supply of and demand for money.

Variations in these two classes may occur separately or simultaneously, and the fortunes and lives of men are affected far more by the second than the first. The former are controlled by the latter, and bankers control to a large extent the destinies of producers and merchants. To-day, a merchant may find the value of his stock suddenly diminished one-half, without any change having taken place in the cost of production or supply of the goods themselves, merely through the conjoint action of a number of bankers in limiting the supply of money. Consider how absurdly the wealth of nations is made to fluctuate under our present systems. To-day the total wealth of a nation is expressed in terms of so many millions of dollars or pounds sterling. To-morrow, by reason of a flurry in the money market, that same wealth, which has undergone no physical change whatsoever, may appear at three-fourths of to-day's valuation! Observe, also, how the cornering of gold precipitated the general panic known as Black Friday! The cornering of a commodity could not possibly create a general panic, so long as debts are not made payable in that one particular commodity.

Under the system I propose, variations in supply and demand of money could have no effect upon prices, because the supply would be always ample to meet the demand. By making all commodities equal—that is, putting them on the same footing—all would be alike monetizable. Industry, trade and commerce would

then assume their natural position and become independent of finance. The fortunes of manufacturers and merchants would then cease to be the shuttlecocks of money brokers and speculators.

A dry-goods merchant would find it as easy to monetize his stock, and the builder his house, as the gold miner his gold. With freedom to monetize all commodities alike, the monopolization of money would be as impossible as the monopolization of *all* commodities. Further, the supply of money would be so abundant that interest for the use of money would rapidly disappear. *Interest is only possible with a restricted currency.*

In the chapter on Purchasing Power, I shewed how the exchange relations of commodities may be expressed. The operation of estimating the relation of all commodities in terms of these units, involved, as we saw, the use of an endless number of figures. By using the present terms this difficulty vanishes. The exchange relations of all goods are now expressed in terms of dollars and cents, pounds, shillings and pence, or some similar monetary terms. But, I am asked, what is a dollar or a pound apart from its gold basis? Simply an arbitrarily selected unit of purchasing power, in simple multiples or fractions of which the exchange relations of all commodities are expressed. Such a dollar is merely ideal. By selecting any commodity, its power is at once made known by the quantity of the commodity which it

will purchase. The ideal dollar is invariable, inasmuch as it does not fluctuate, from supply and demand. The gold dollar, the commodity dollar, is continually varying. Although to many this idea of what the dollar should be may seem novel, a few moments' reflection will shew them that almost all people, outside of bankers and money dealers, do, in practice, use dollars and pounds in this ideal sense, although unconsciously. Not one person in ten thousand ever stops to think of what a dollar is, expressed in gold. All they think of is its purchasing power, expressed in the particular commodity they need, and as they do not need gold, they never think of ascertaining the gold equivalent of a dollar. "How much of this can I buy with my dollar, or how much of that?" is the question that immediately concerns them.

Evidence of the use of ideal money is furnished from experience, in this and other countries, by the inconvertible note currency. "Governments," says Francis Walker, "have frequently issued paper money without adequate provision for its redemption in gold and in silver, without such redemption, in fact, taking place, and sometimes without redemption being promised, and yet that paper money has circulated as rapidly as gold or silver would have done, has been taken as freely in exchange for commodities and services, and even in some instances has maintained an actual value equal to that of the amount of the

precious metals to which it was nominally equivalent. The paper money of Massachusetts, for the greater part of the period 1690 to 1710; the paper money of Russia for the twenty years following 1768; the so-called continental currency of the American Revolution, for a year and more after the first emission; the paper money of Prussia for no inconsiderable period of time, all circulated freely, even without discount in specie." And again he says: "The so-called greenbacks of the American Civil War, never, from 1862 to the close of 1878, lost their currency in the smallest degree. At their price they were always taken readily, eagerly. Men never sought to avoid their use by taking gold at a premium, or by resorting to barter or credit." This last statement is remarkable, owing to the fact that the United States Government dishonoured this currency by the famous—or rather infamous—exception clause, refusing to accept it in payment for duties and customs. . . . And now, having dissolved the partnership of bankers with governments, on what basis will banks operate? How and by whom will money be issued? The first thing to be said is this: that with the field entirely free from legislative obstructions, there is room for the best possible financial system to develop which will be the *natural outgrowth of commerce*. The best, most useful, most stable institutions have thriven where there were the fewest artificial restrictions. Such institutions, coming into existence under free and natural conditions,

must necessarily be better adapted to the wants of men than those stunted by the artificial hot-house methods of government.

Good systems of finance, like all good social institutions, are things of growth, and they conform naturally—if let alone by law-makers—to the needs of the people. What those needs will be ten, twenty, fifty years hence no man can foretell. To arbitrarily fix a system of banking which is incapable of variation or adaptation to social growth, is like the Chinese method of keeping their women's feet encased in children's shoes.

Banking methods should adapt themselves to the requirements of trade, and not trade to the fixed systems of bankers. Banking should exist solely to facilitate commerce. Numerous plans have been proposed to supplant the present system, and there is no question but that experience would soon determine what was best fitted for the conditions. The plan which appears to me the most scientific, most capable of variation and expansion, and in accordance with the principles I have announced, is that already described and known as the Mutual Banking System. In attempting to solve this question, I disclaim any intention of inventing a banking system. I claim that the money problem will be solved as soon as governments cease monopolizing and interfering with the currency. Repeal of all laws prohibiting and restricting banking and the issuing of money, would call into

existence numerous systems, competition among which would lead to the survival of the fittest, which is the natural solution of the banking and currency question.

My task is finished. I have endeavoured to point out what I believe to be certain grave errors in the prevailing theories of orthodox political economy, particularly that branch which deals with the subject of money. Much more might be said in connection with this and other branches of the science, but time does not permit of more than cursory treatment of most of the subjects discussed. My desire is to create an interest in this science which will lead others abler than I to the discussion and to a searching investigation of the theories which now pass for truth. The money question is by far the most important of all our political questions ; it is not a mere abstract study for scholars, nor does it only concern statesmen and financiers. It affects the lives, fortunes and happiness of every member of society, and must sensibly affect those of future generations. By building our industries on a false foundation, our civilization is in danger of being swept away.

Let me in conclusion repeat what I have said in the preface. Fundamentally the money question is a question of commercial equity, and our aim should be to establish such a monetary system that justice will be meted out to wealth producers. Such a system would, I believe, be immediately called into existence were all restrictive legislation regarding money and

exchange abolished. Notwithstanding the prodigious feats performed by man's inventive genius in the manner of producing wealth, the mechanism of exchange and the system of distribution—under the fatal ban of legislation—remain as inefficient and inequitable as before the age of modern labor-saving inventions. In demonstrating these assertions I ask a careful and impartial consideration of the ideas herein advanced. For the usual haphazard expressions of opinion from those who believe that whatever is, is right, and of those whose judgments are based upon the sentiments of their favourite newspapers or political leaders, I am prepared. It is not from such that reforms come or are encouraged; it is not from these that the conditions of life are made better or brighter; it is to the thoughtful men and women whose lives are passed, often painfully, in industrial pursuits, and who feel the grind and friction of the machinery, to whom I appeal. To such—in fact to nine-tenths of the civilized world—this money question is the supreme problem of the hour.